

**Fig.1**

10 20 30 40 50  
AUCACUCUCUUUAAUCACUACUCACAGUAACCUCAACUCCUGCCACAAUGUACAGGAU

70 80 90 100 110  
AACUCCUGUCUUGCAUUUGCACUAAGUCUUGCACUUGCACAAACAGUGCACCUAUCUUC,  
ACGTGATTCAGAACGTGAACAGTGTTTGTC  
77-91 92-106

130 140 150 160 170  
GUUCUACAAAGAAAACACAGCUACAACUGGAGCAUUUACUGCUGGAUUUACAGAUGAU

190 200 210 220 230  
UGAAUGGAAUUAUAAUUAUACAAGAAUCCCAAACUCACCAGGAUGCUCACAUUUAAGUU  
ATGTTCTTAGGGTTTGAGTGGTCTACGAGTGTAAATTCAA  
198-212 213-227 228-242

250 260 270 280 290  
ACAUGCCCAAGAAGGCCACAGAACUGAAACAUCUUCAGUGUCUAGAAGAAGAACUCA/  
TGTACGGGTTCTTCCGG TCTTCTTGAGTT  
243-257 287-301

310 320 330 340 350  
CUCUGGAGGAAGUGCUAAAUUUAGCUCAAAGCAAAACUUUCACUUAAGACCCAGGGA  
GAGACCTCCTTCACGA GTGAATTCTGGGTCCCT  
302-316 342-356

370 380 390 400 410  
UAAUCAGCAAUAUCAACGUAAUAGUUCUGGAACUAAAGGGAUCUGAAACAACAUUCAU  
ATTAGTCGTTA  
357-371

430 440 450 460 470  
GUGAAUAUGCUGAUGAGACAGCAACCAUUGUAGAAUUUCUGAACAGAUGGAUUACCUU

490 500 510 520 530  
GUCAAAGCAUCAUCUCAACACUAACUUGAUAAUUAAGUGCUUCCCAUUA AAAACAUAUC

550 560 570 580 590 600  
GGCCUUCUAUUUAUUUAAAUUUUAAAUUUUAUUAUUUAUUGUUGAAUGUAUGGUUUGCUA

610 620 630 640 650 660  
CCUAUUGUAACUAUUAUUCUUAACUUA AAAACUAUAAUAUGGAUCUUUUAUGAUUCUUL

670 680 690 700 710 720  
UUGUAAGCCCUAGGGGCUCUAAA AUGGUUUCACUUAUUUAUCCCAAAAUUUUAUUUUU

730 740 750 760 770 780  
UGUUGAAUGUUA AUUAUGUAUCUAUGUAGAUUGGUUAGUAAACUAUUUAUAAAUUUU

790 800  
AUAAAUUAAAAAAAAAAAAAC

**Fig.2**

10 20 30 40 50 60  
GAUCGUUAGCUUCUCCUGAUAAACUAAUUGCCUCACAUUGUCACUGCAAUUCGACACCUA

70 80 90 100 110 120  
UUAUUGGGUCUACCUCCCAACUGCUUCCCCUCUGUUCUUCUCCUGCUAGCAUGUGCCGGC  
GAGTGGAGGGTTGAC GAAGGGGGAGACAAG CG

70-84 85-99

130 140 150 160 170 180  
AACUUUGUCCACGGACACAAGUGCGAUUACCUUACAGGAGAUCAUCAAACUUUGAAC  
TTGAAACAGGTGC CTGTGTTACGCTAT ACTTG

119-133 134-148

190 200 210 220 230 240  
AGCCUCACAGAGCAGAAGACUCUGUGCACCAGUUGACCGUAACAGACAUCUUUGCUGCC  
TCGGAGTGTC TCGTCTTCTGAGACA

176-190 191-205

250 260 270 280 290 300  
UCCAAGAACACAACUGAGAAGGAAACCUUCUGCAGGGCUGCGACUGUGCUCCGGCAGUUC  
TGAAGACGTCCCGA CGCTGACACGAGGCC

265-279 280-294

310 320 330 340 350 360  
UACAGCCACCAUGAGAAGGACACUCGCUGCCUGGGUGCGACUGCACAGCAGUUCCACAGG

370 380 390 400 410 420  
CACAAGCAGCUGAUCCGAUUCUGAAACGGCUCGACAGGAACCUCUGGGGCCUGGCGGGC  
GCTAAGGACTTTGCC GAGCTGTCCTTGGAG

376-390 391-405

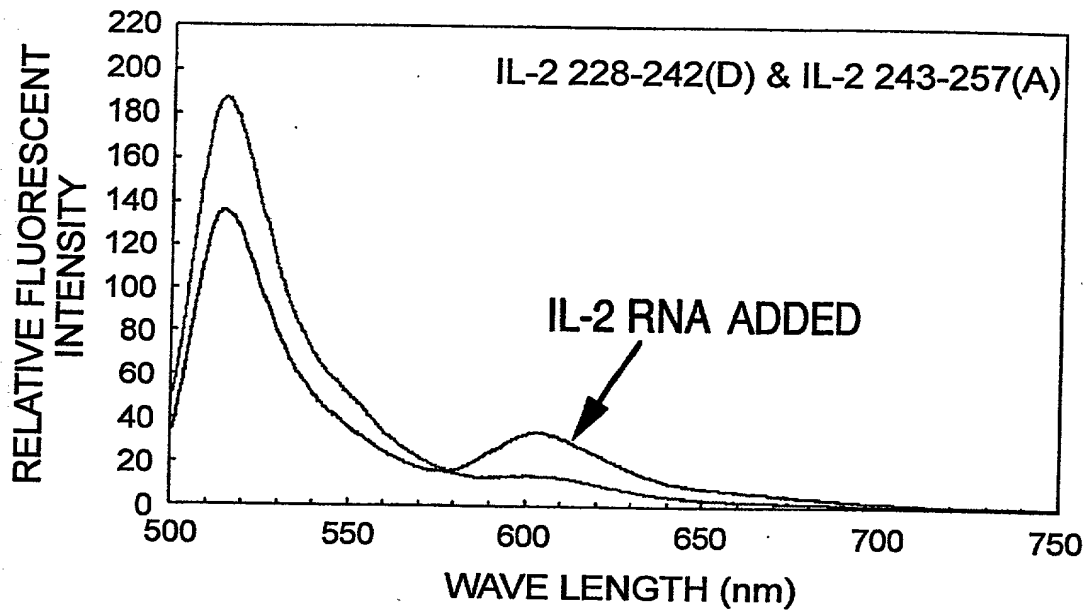
430 440 450 460 470 480  
UUGAAUUCUGUCCUGUGAAGGAAGCCAACCAGAGUACGUUGGAAAACUUCUUGGAAAGG

490 500 510 520 530 540  
CUAAAGACGAUCAUGAGAGAGAAUUAUCAAAGUGUUCGAGCUGAAUUAUUUUAUUUAUG

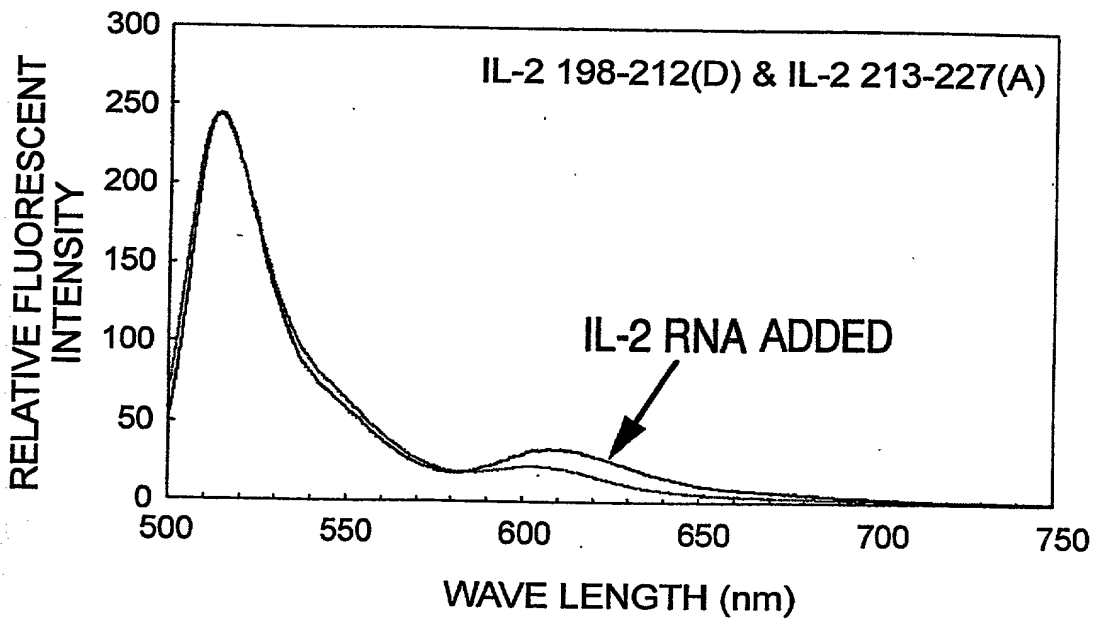
550 560 570 580 590 600  
AGUUUUUGAUAGCUUUUUUUUAAGUAUUUAUUAUUUAUAACUCAUCAUAAAAUAAAG

610  
UAUAUAUAGAAUCUAAAA

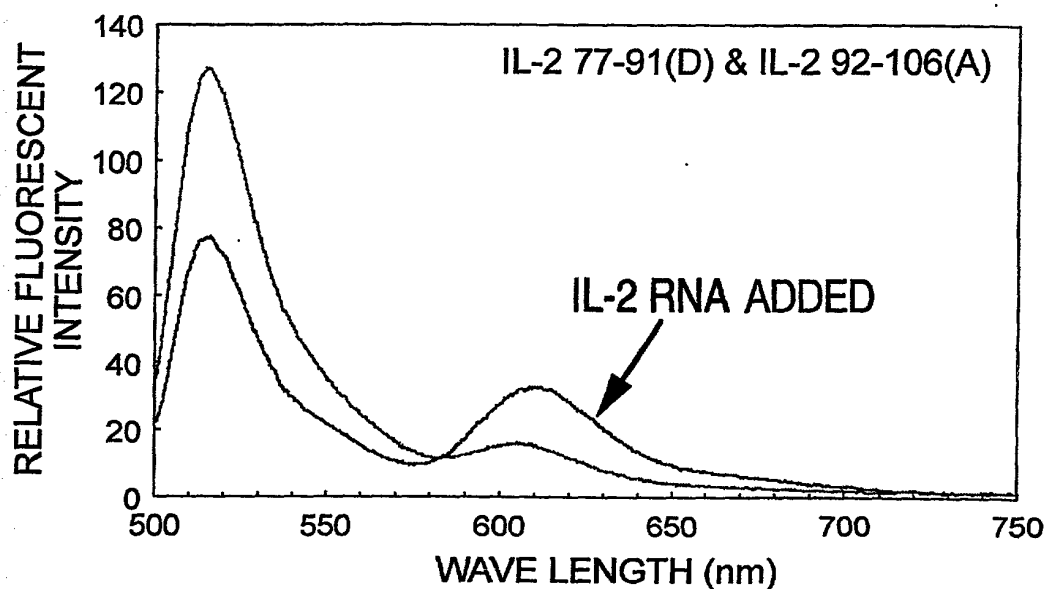
**Fig.3**



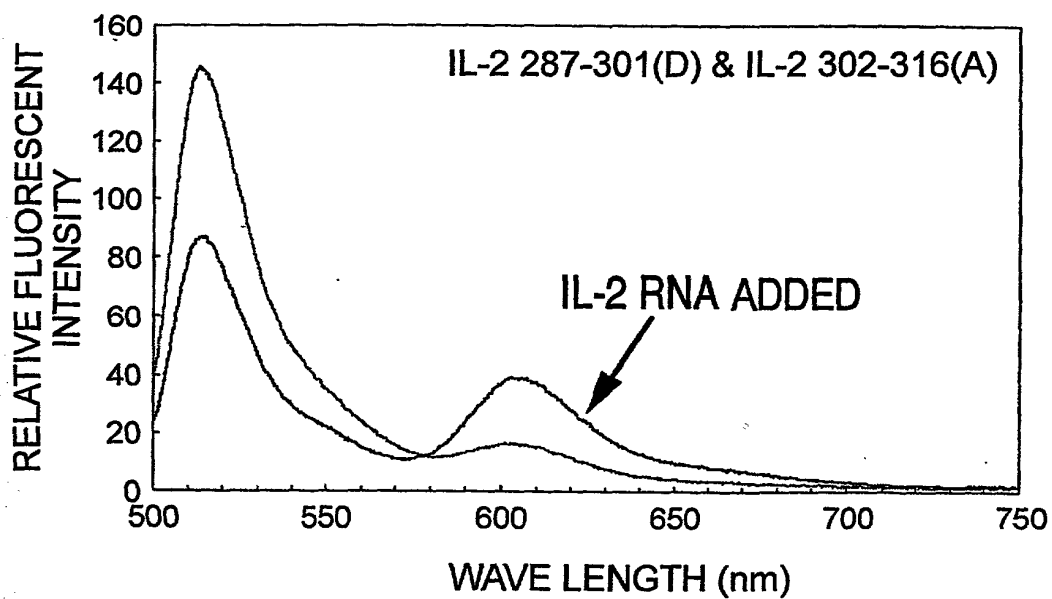
**Fig.4**



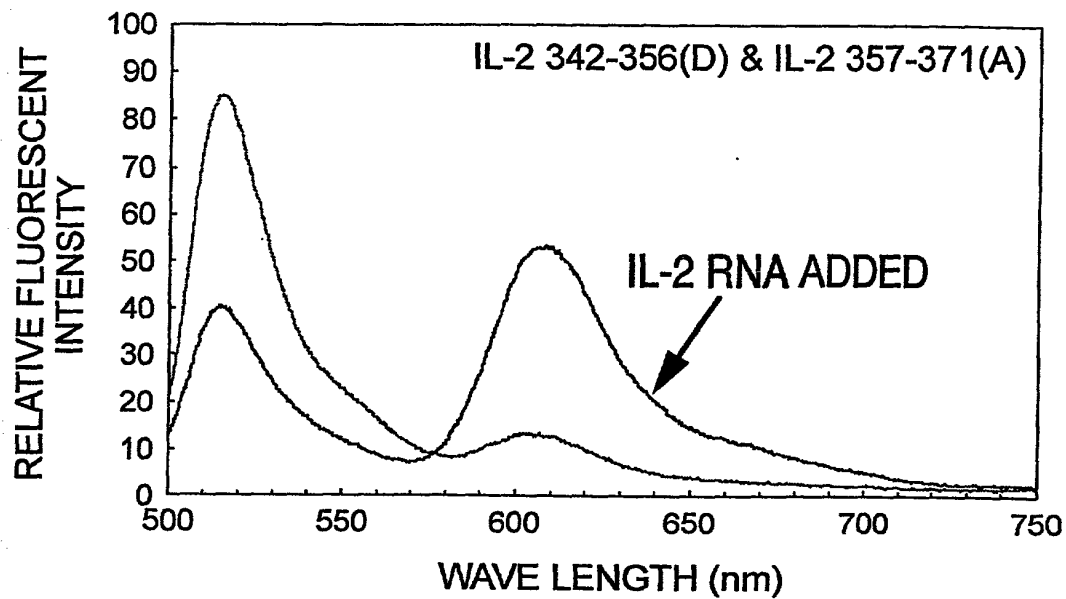
**Fig.5**



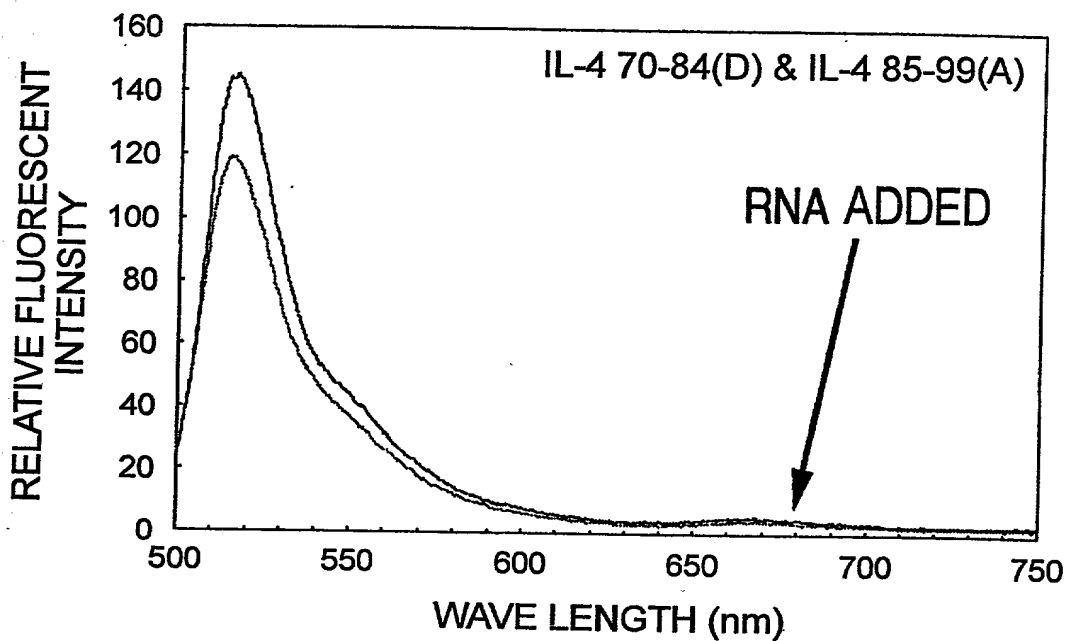
**Fig.6**



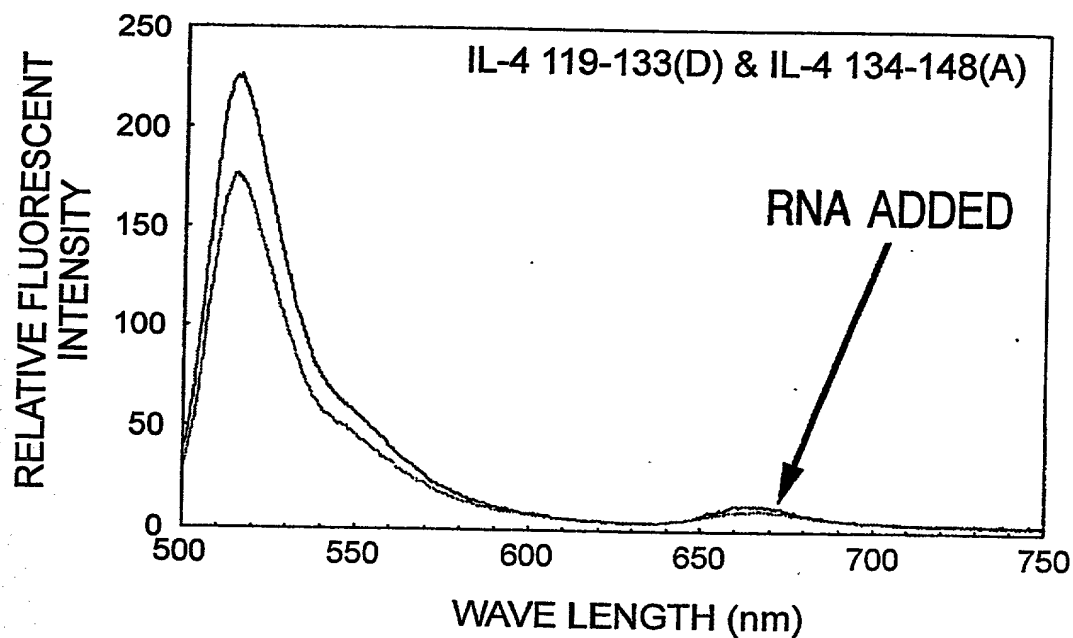
**Fig.7**



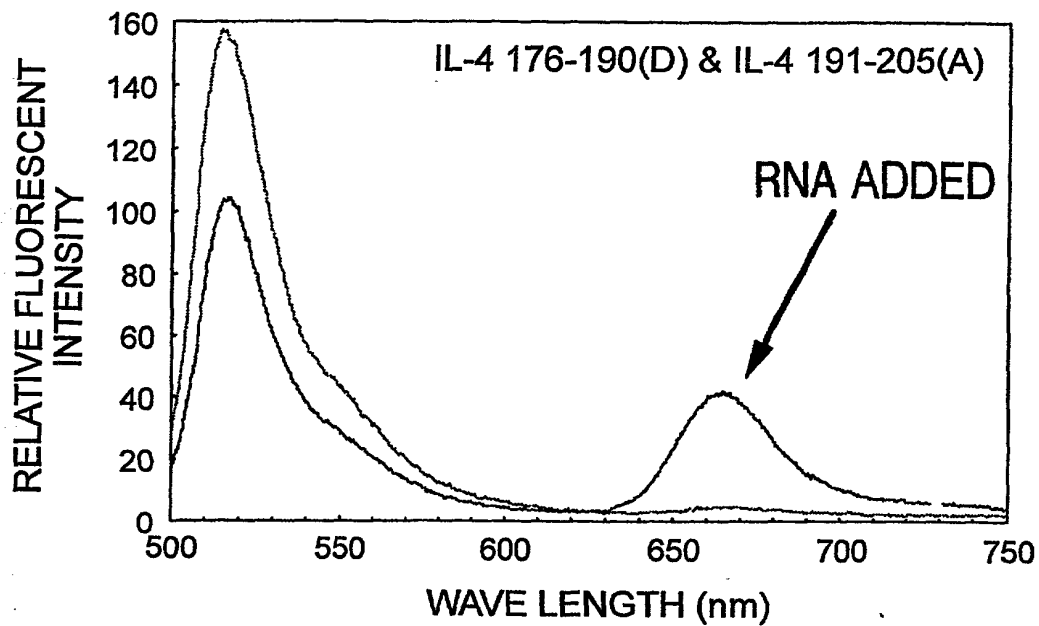
**Fig.8**



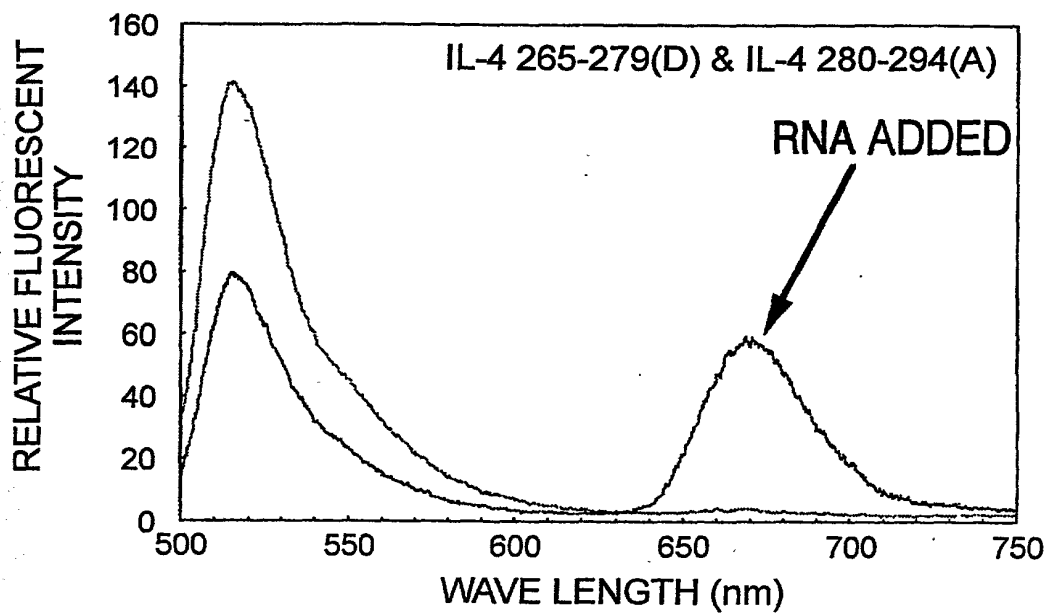
**Fig.9**



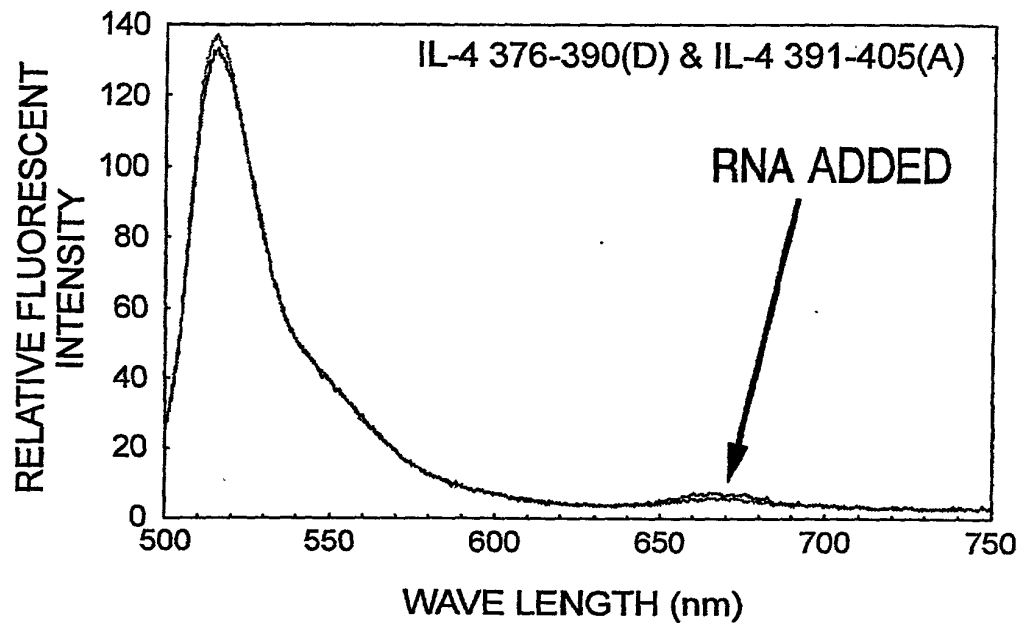
**Fig.10**



**Fig.11**



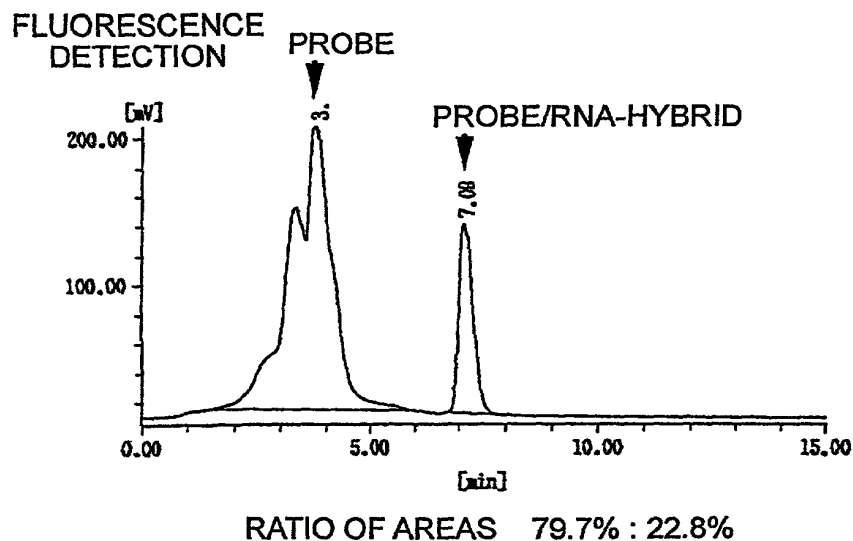
**Fig.12**





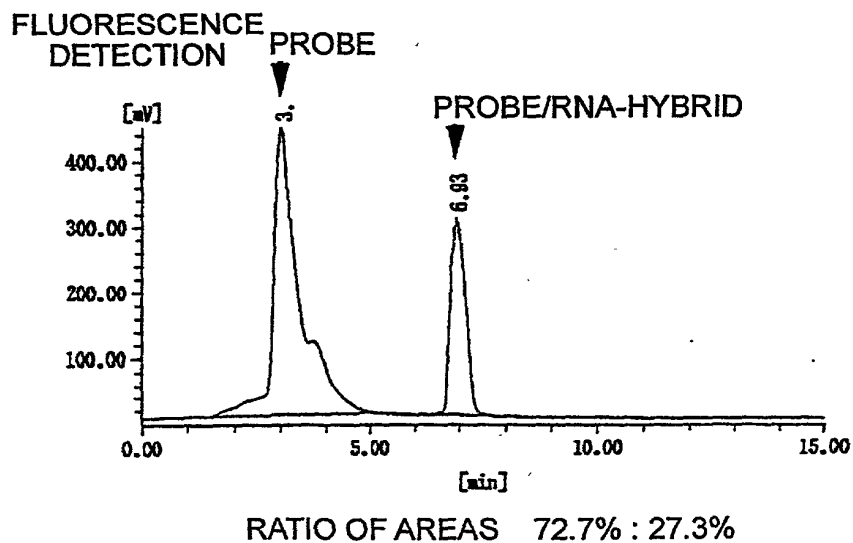
**Fig.13**

IL-2 342-356



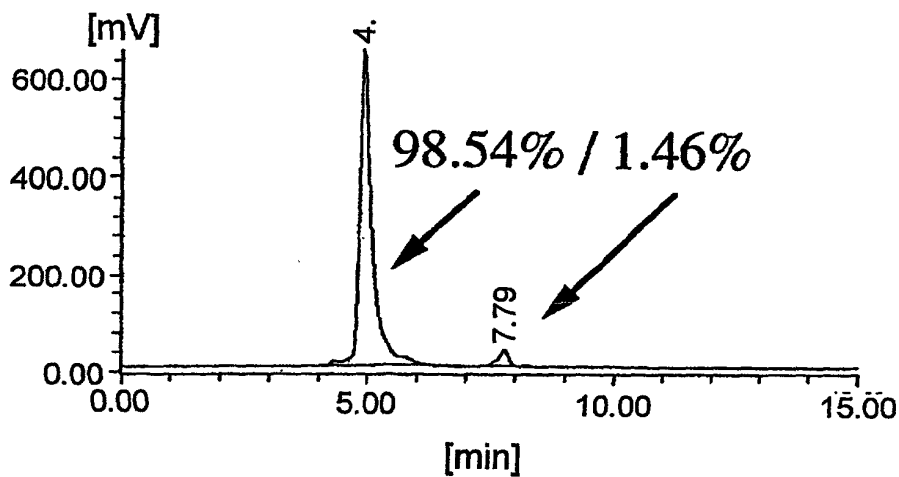
**Fig.14**

IL-2 357-371



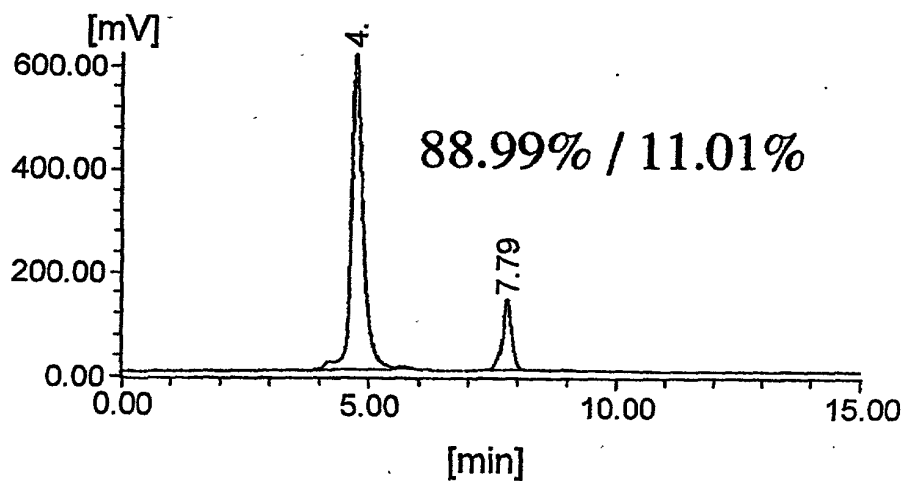
**Fig.15**

IL-4 119-133



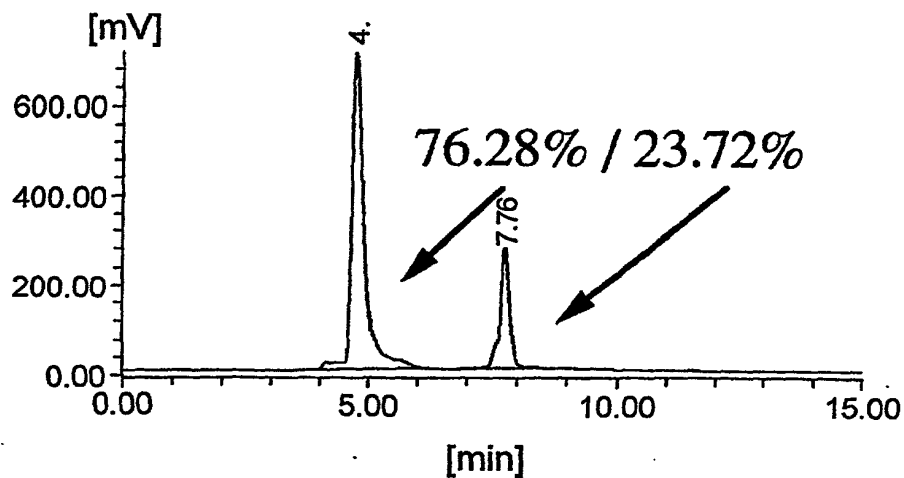
**Fig.16**

IL-4 134-148



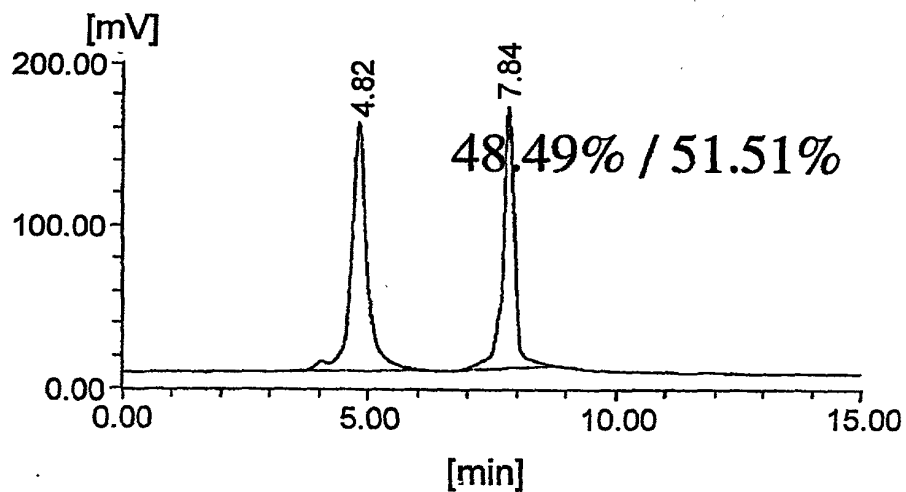
**Fig.17**

IL-4 265-279

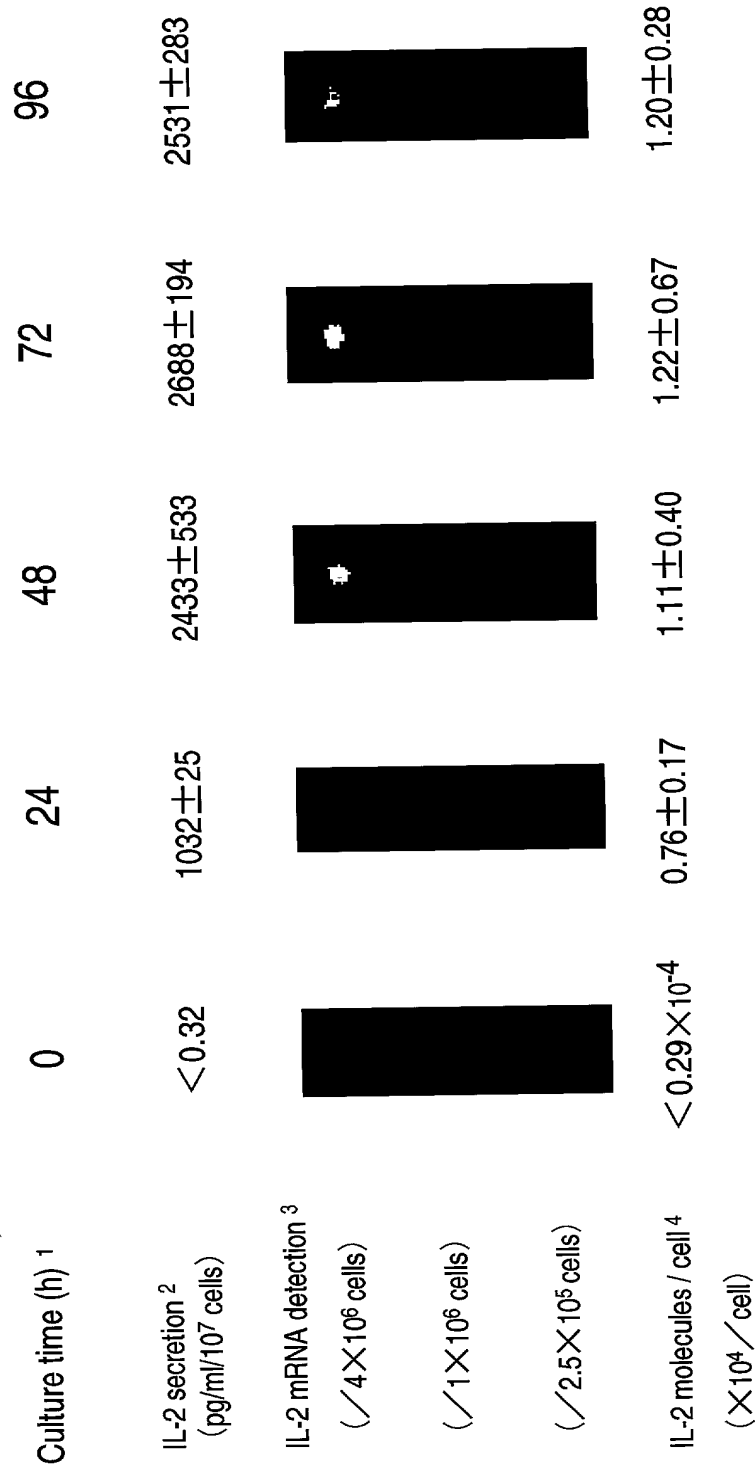


**Fig.18**

IL-4 280-294



**Fig.19**



<sup>1</sup> Time after adding 10 nM PMA, 0.5 mg/ml anti-human CD3 antibody and anti-human CD28 antibody to cultured Jurkat E6-1 cells

<sup>2</sup> The concentration of IL-2 in the culture supernatants measured by ELISA using anti-human IL-2 antibody

<sup>3, 4</sup> Determination of cellular IL-2 expression level by dot blotting using RNA probe complementary to human IL-2 mRNA

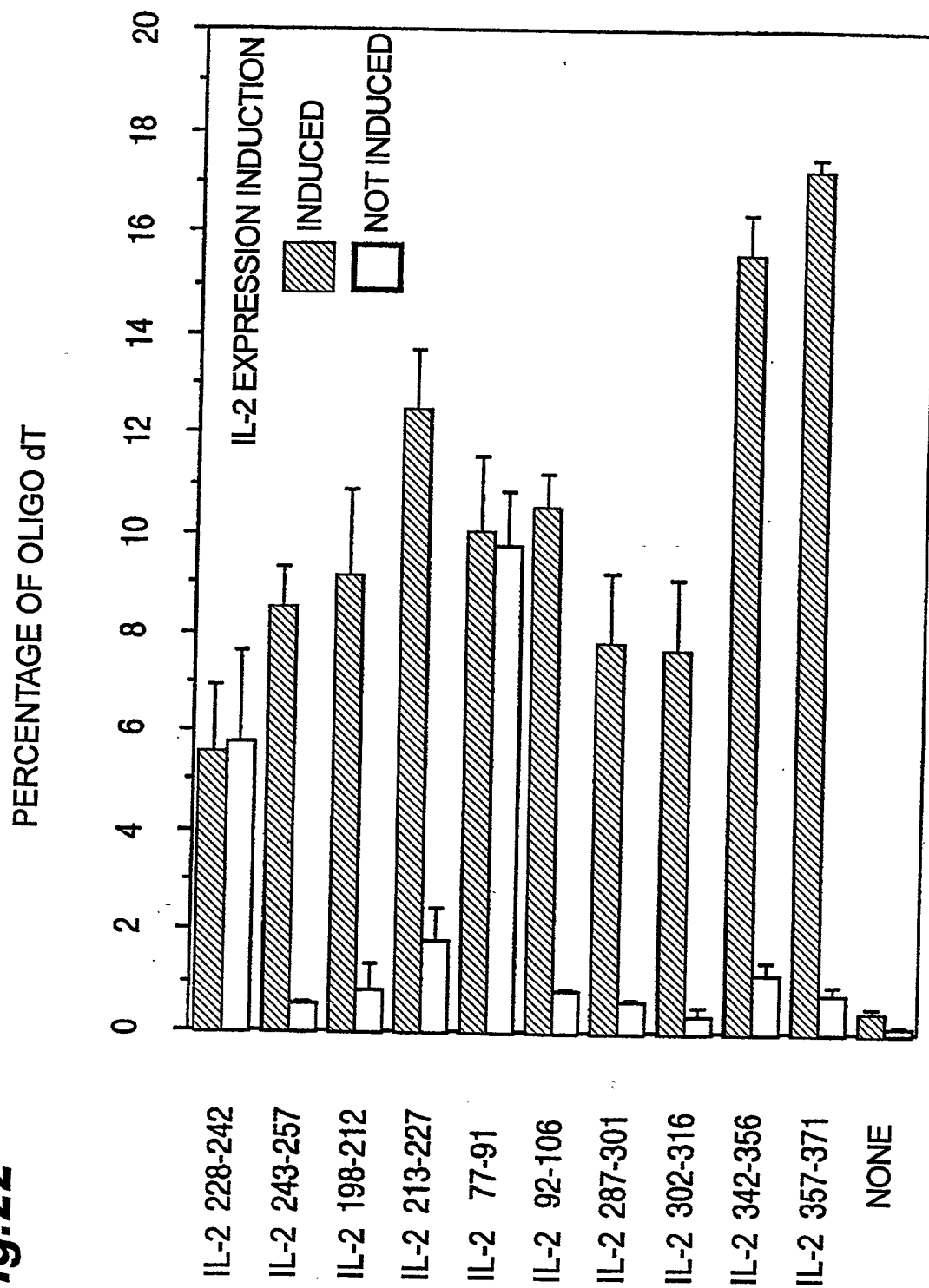
**Fig.20**

DIG-11-dUTP & Reverse transcriptase	Oligonucleotide	IL-2 expression	
		(+)	(-)
none	none		
none	none		
added	oligo dA		
added	oligo dT		

## Fig.21

PROBE	IL-2 EXPRESSION		
	(+)	(-)	
IL-2 228-242(D)			
IL-2 243-257(A)			
IL-2 198-212(D)			
IL-2 213-227(A)			
IL-2 77-91(D)			
IL-2 92-106(A)			
IL-2 287-301(D)			
IL-2 302-316(A)			
IL-2 342-356(D)			
IL-2 357-371(A)			
NONE			

**Fig.22**

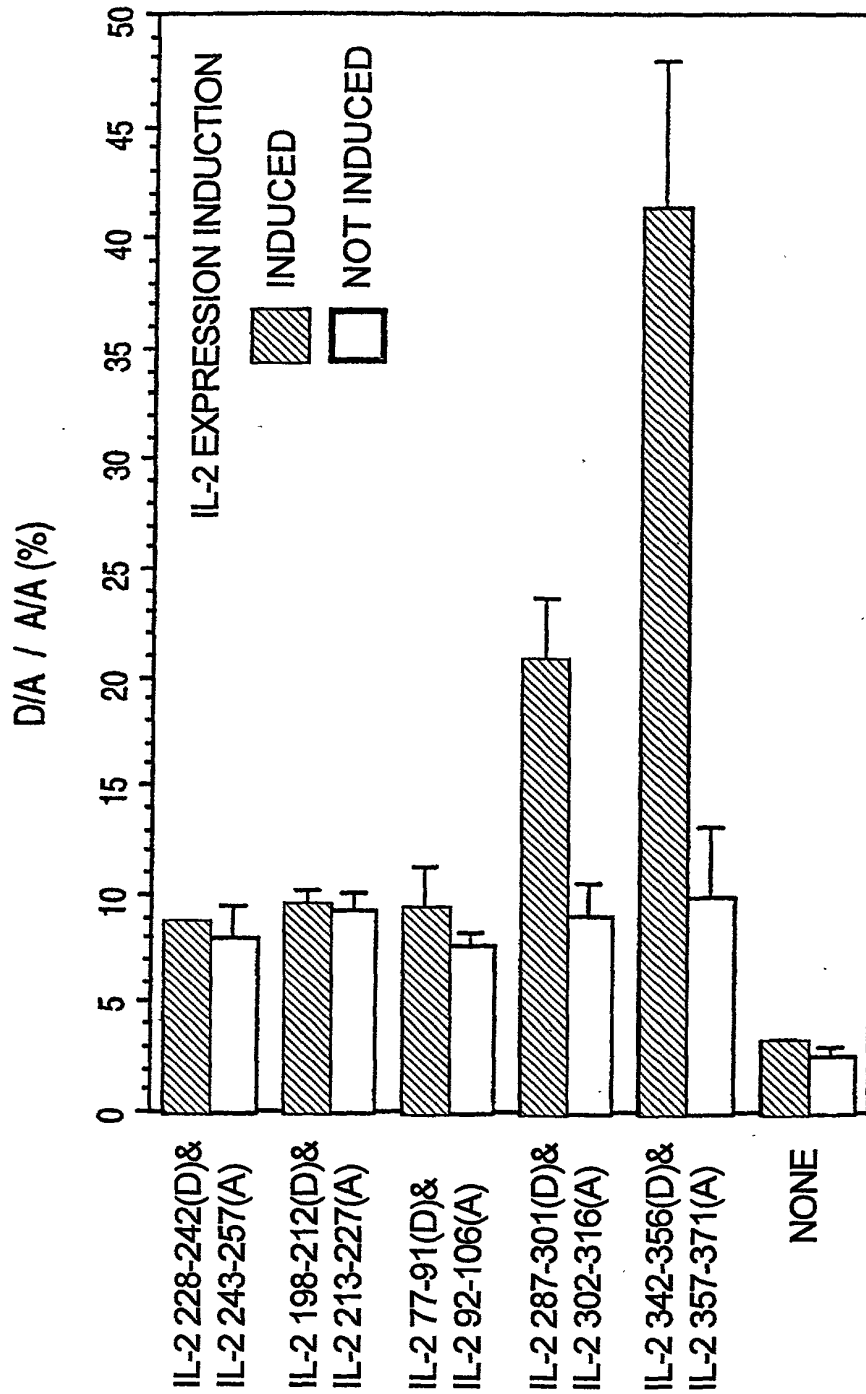


# Fig.23

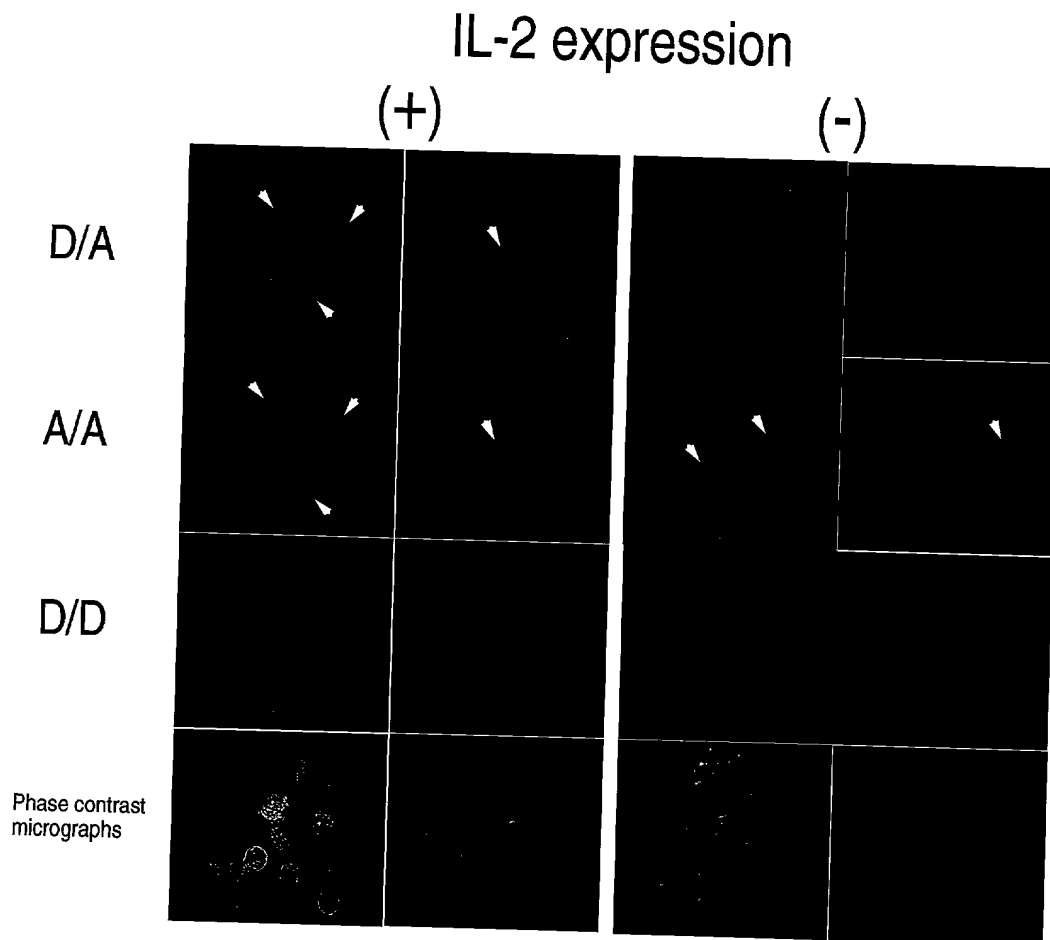
PROBE	IL-2 EXPRESSION					
	( + )			( - )		
IL-2 228-242(D) & IL-2 243-257(A)	D/A	A/A	D/D	D/A	A/A	D/D
IL-2 198-212(D) & IL-2 213-227(A)						
IL-2 77-91(D) & IL-2 92-106(A)						
IL-2 287-301(D) & IL-2 302-316(A)						
IL-2 342-356(D) & IL-2 357-371(A)						
NONE & NONE						



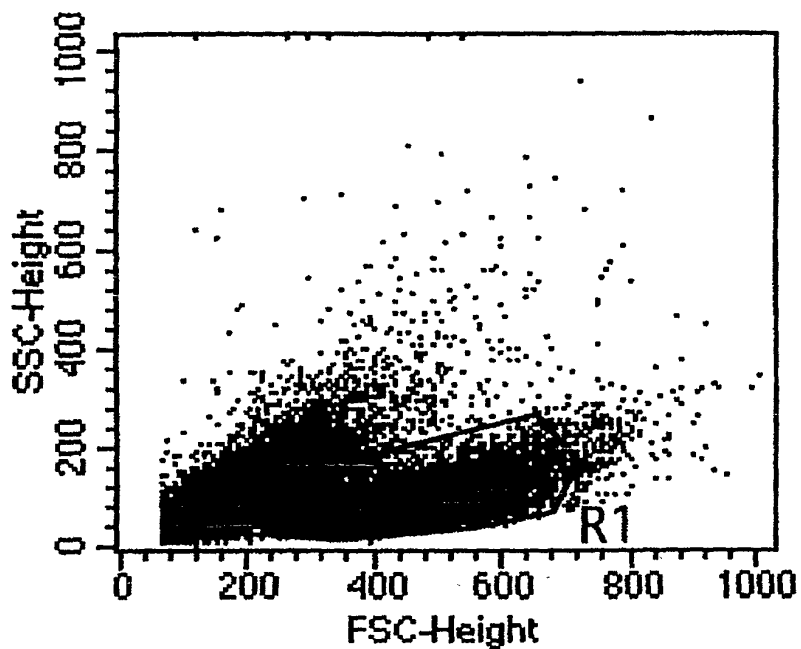
**Fig.24**



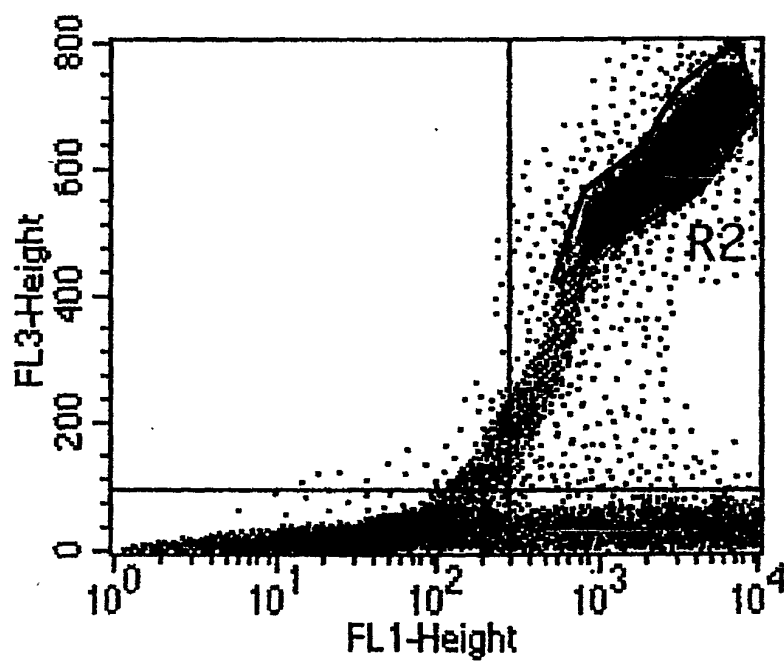
**Fig.25**



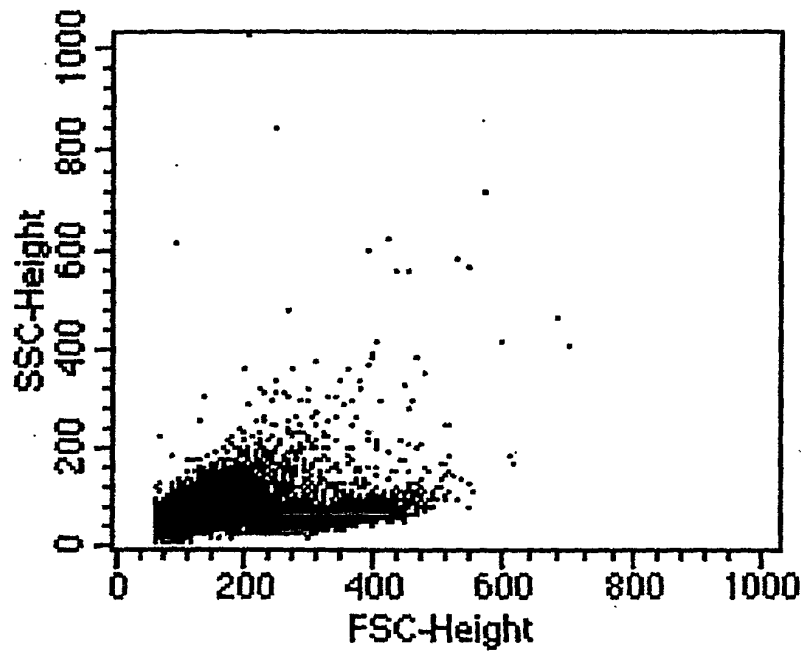
**Fig.26**



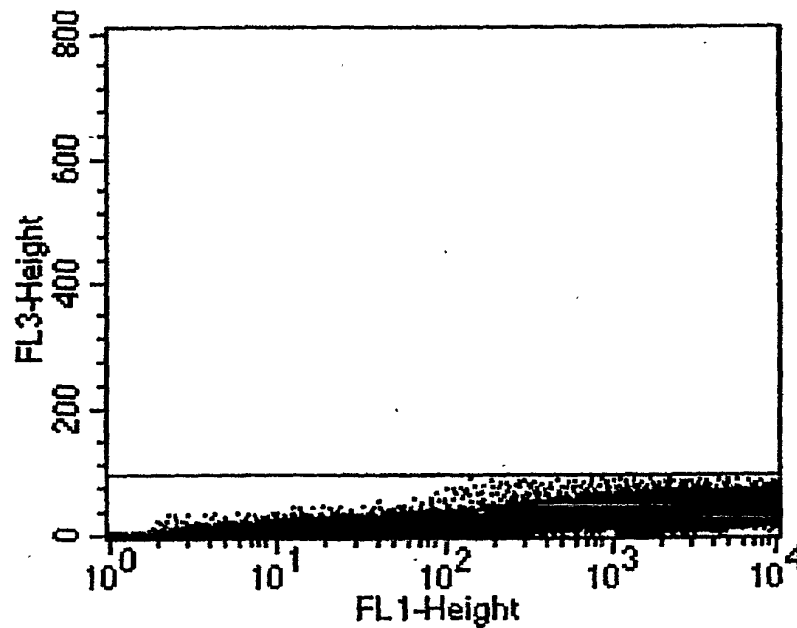
**Fig.27**



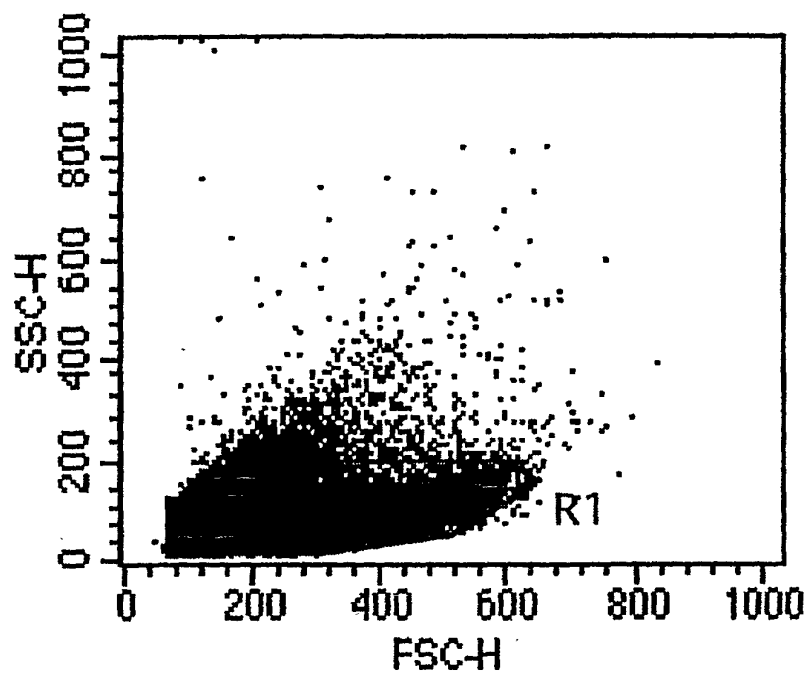
**Fig.28**



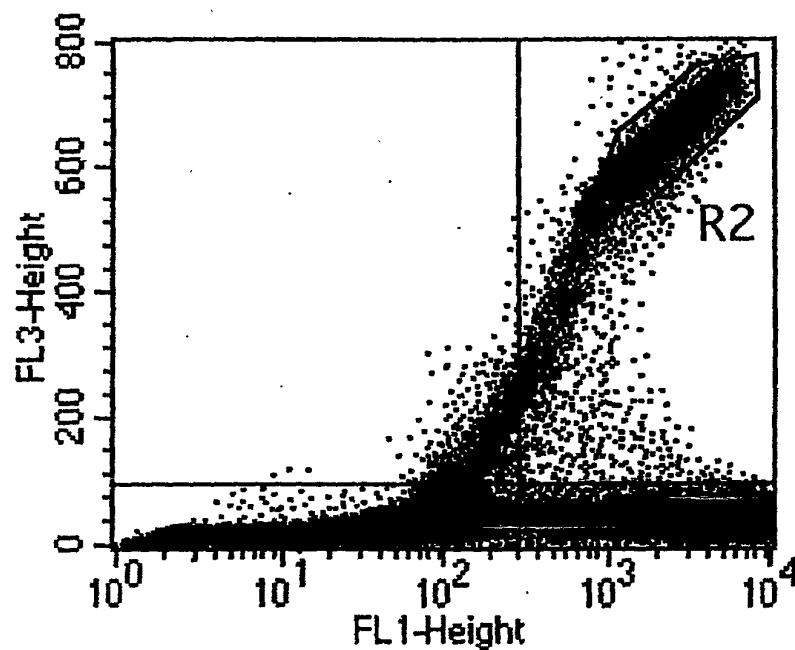
**Fig.29**



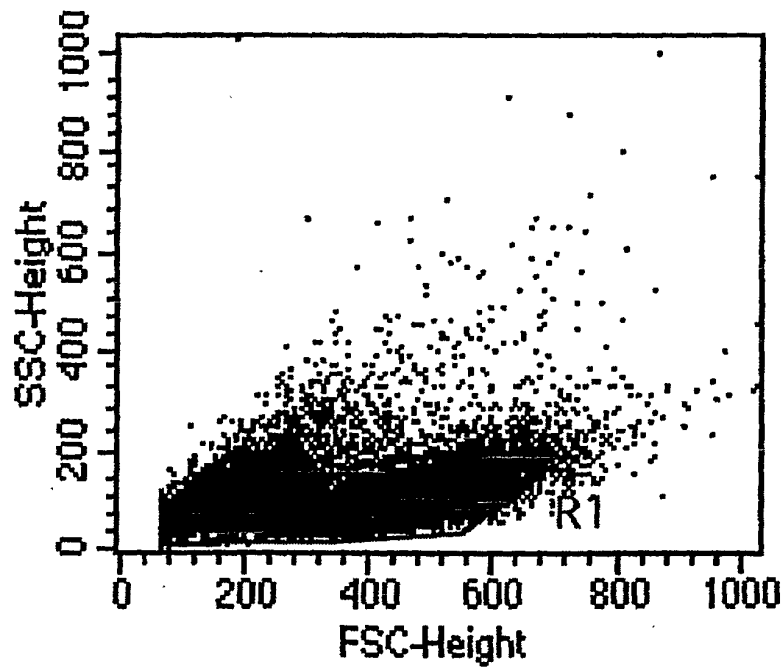
**Fig.30**



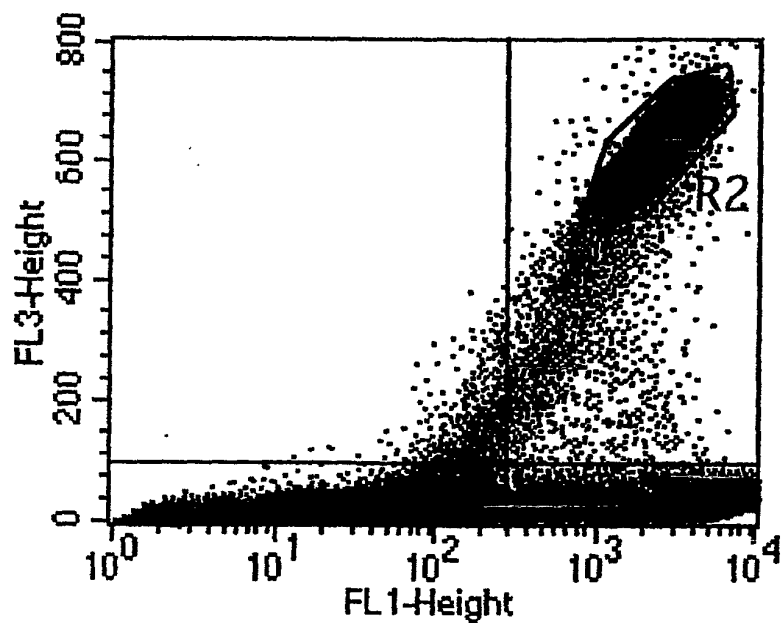
**Fig.31**



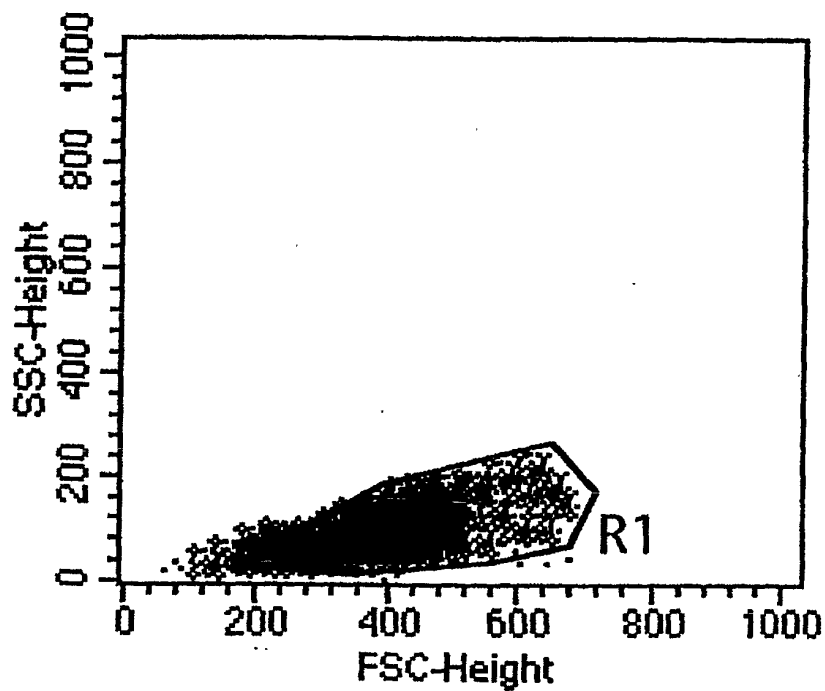
**Fig.32**



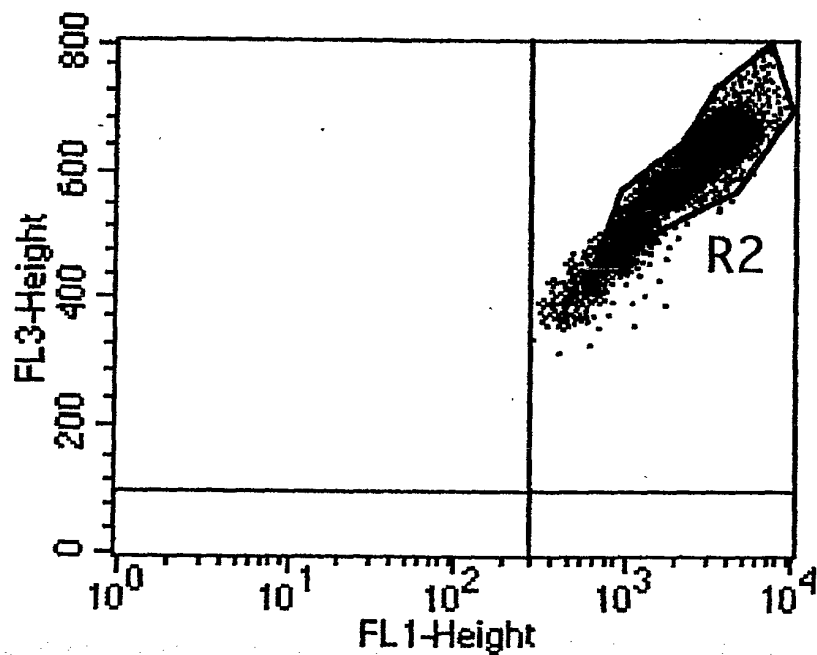
**Fig.33**



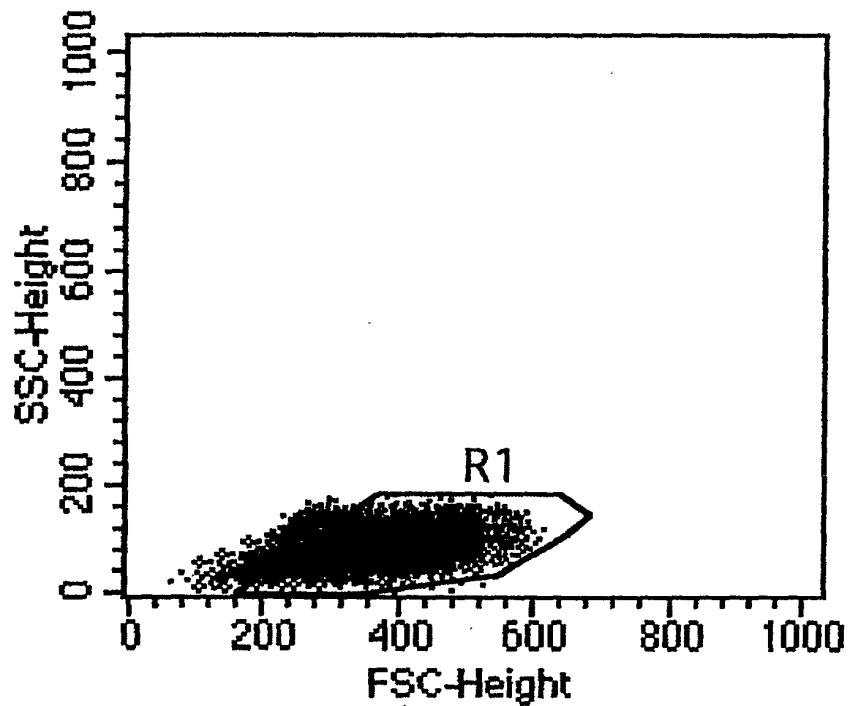
**Fig.34**



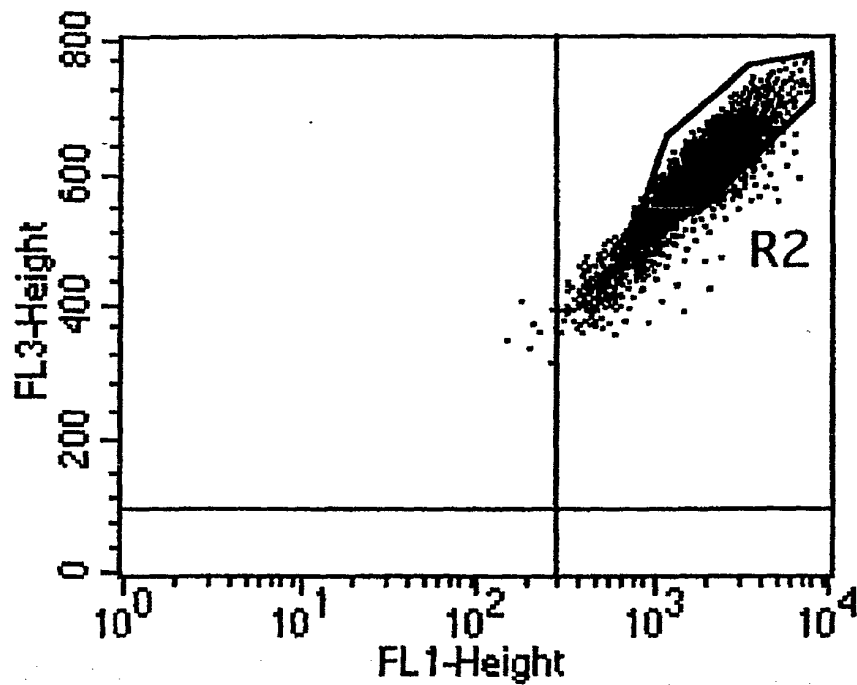
**Fig.35**



**Fig.36**

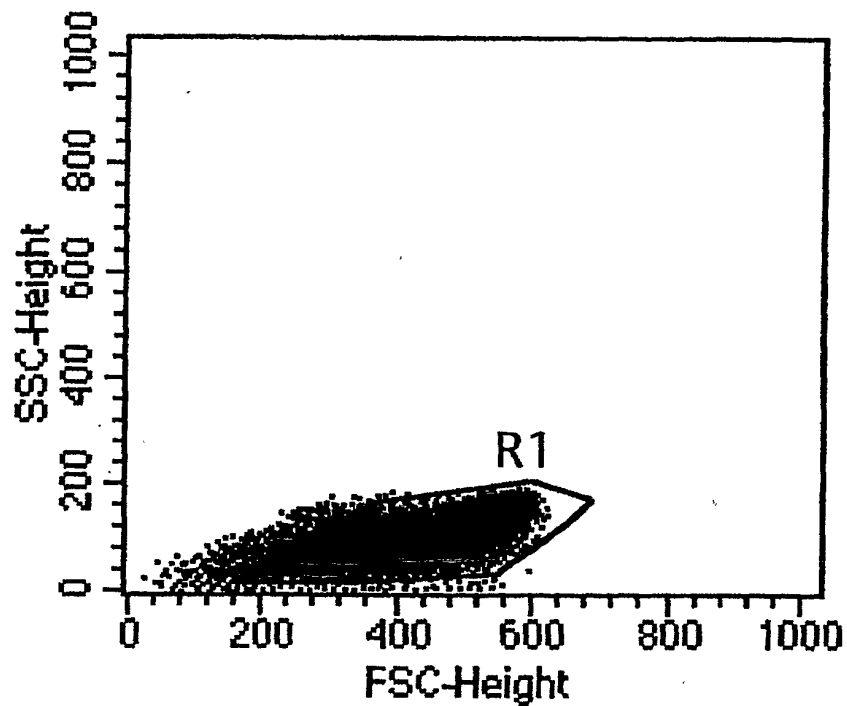


**Fig.37**

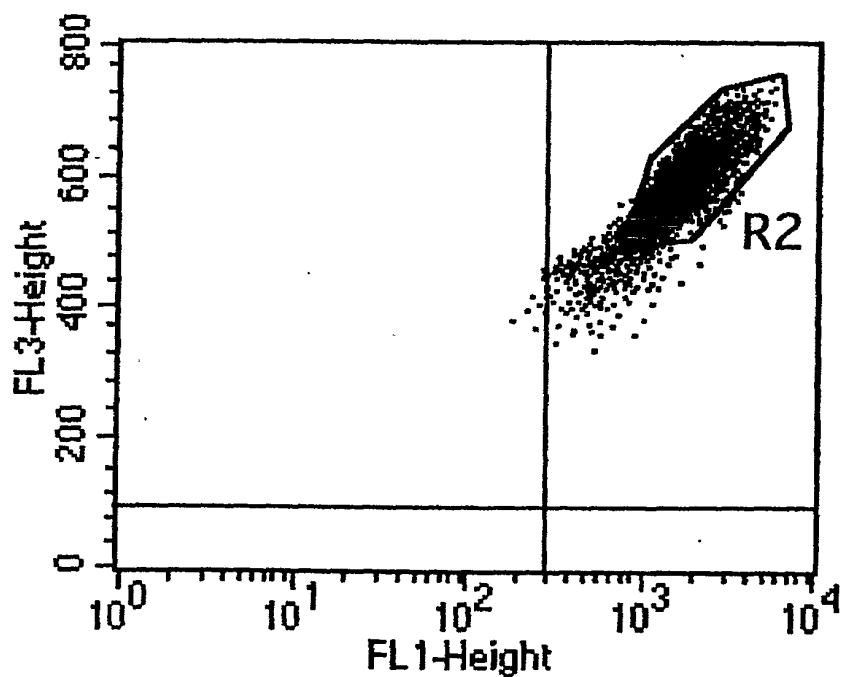




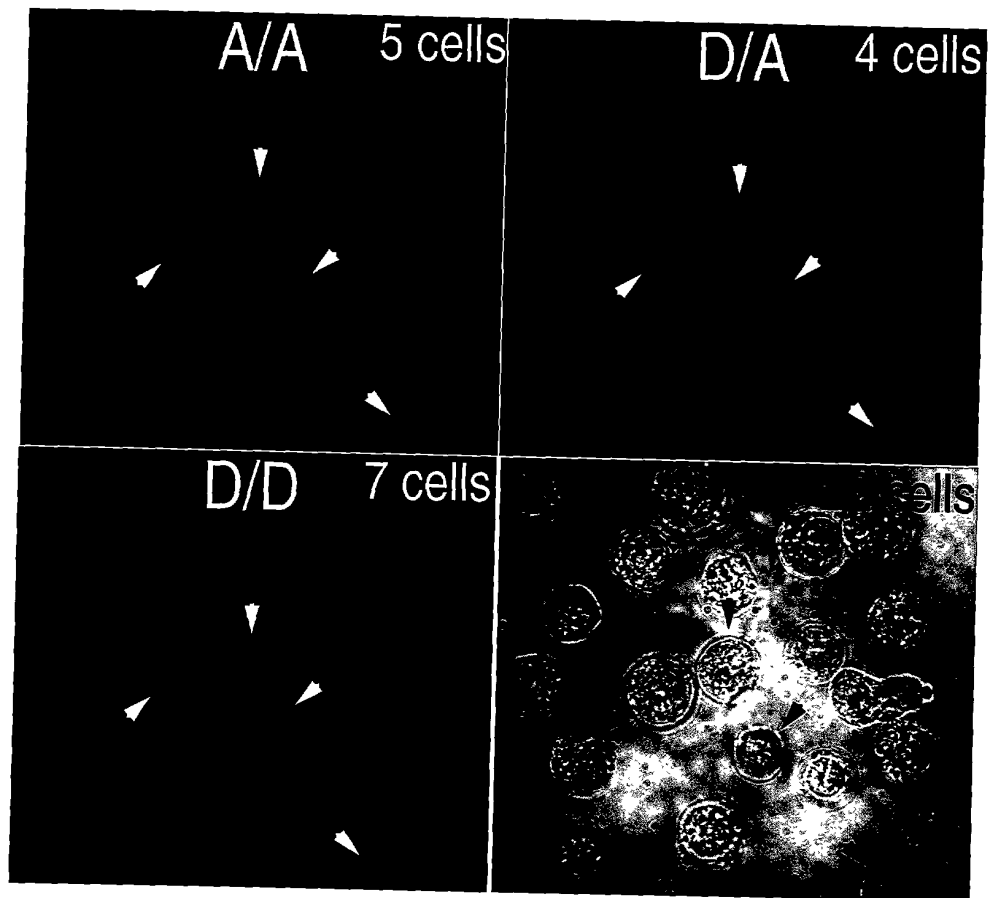
**Fig.38**



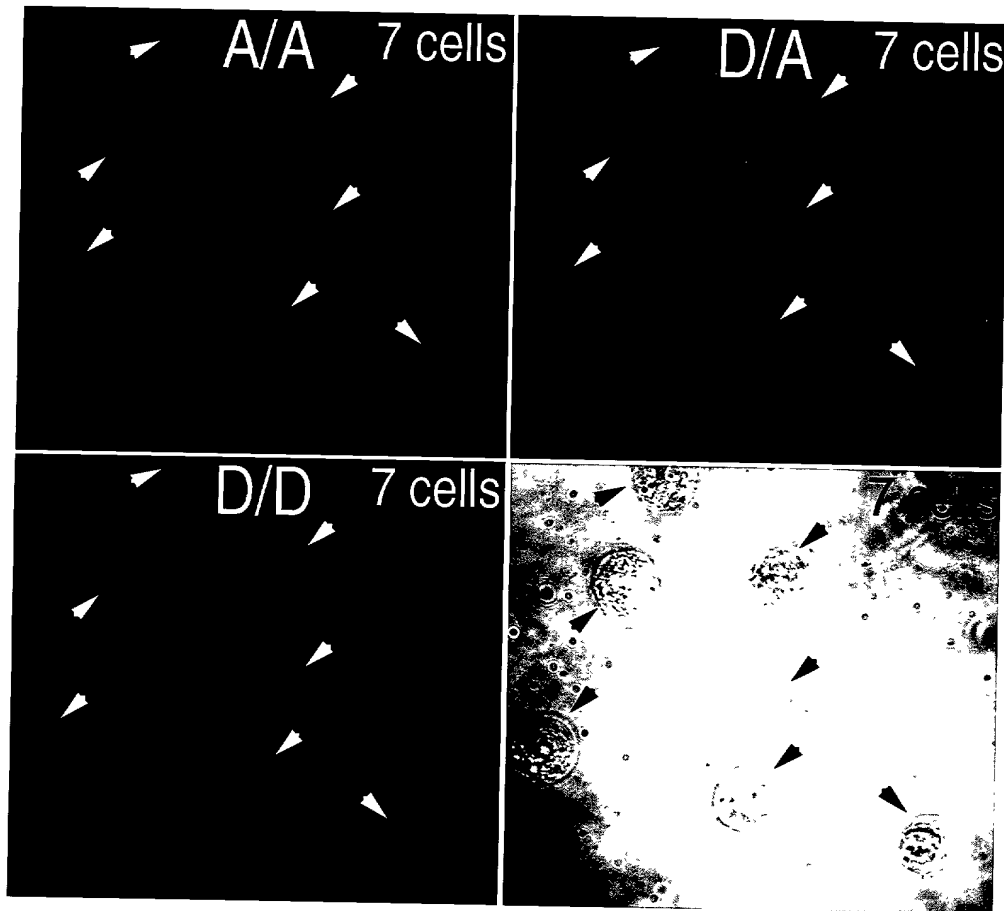
**Fig.39**



**Fig.40**



**Fig.41**



Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

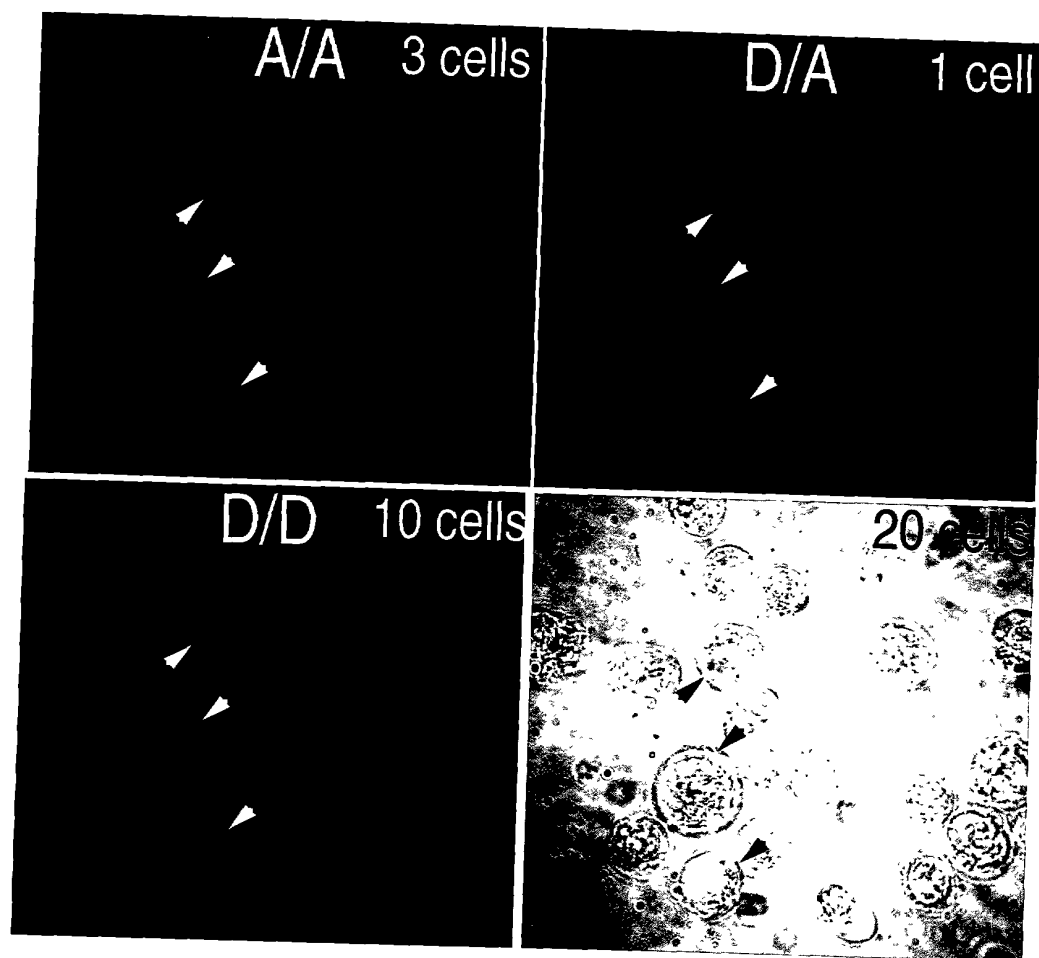
Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

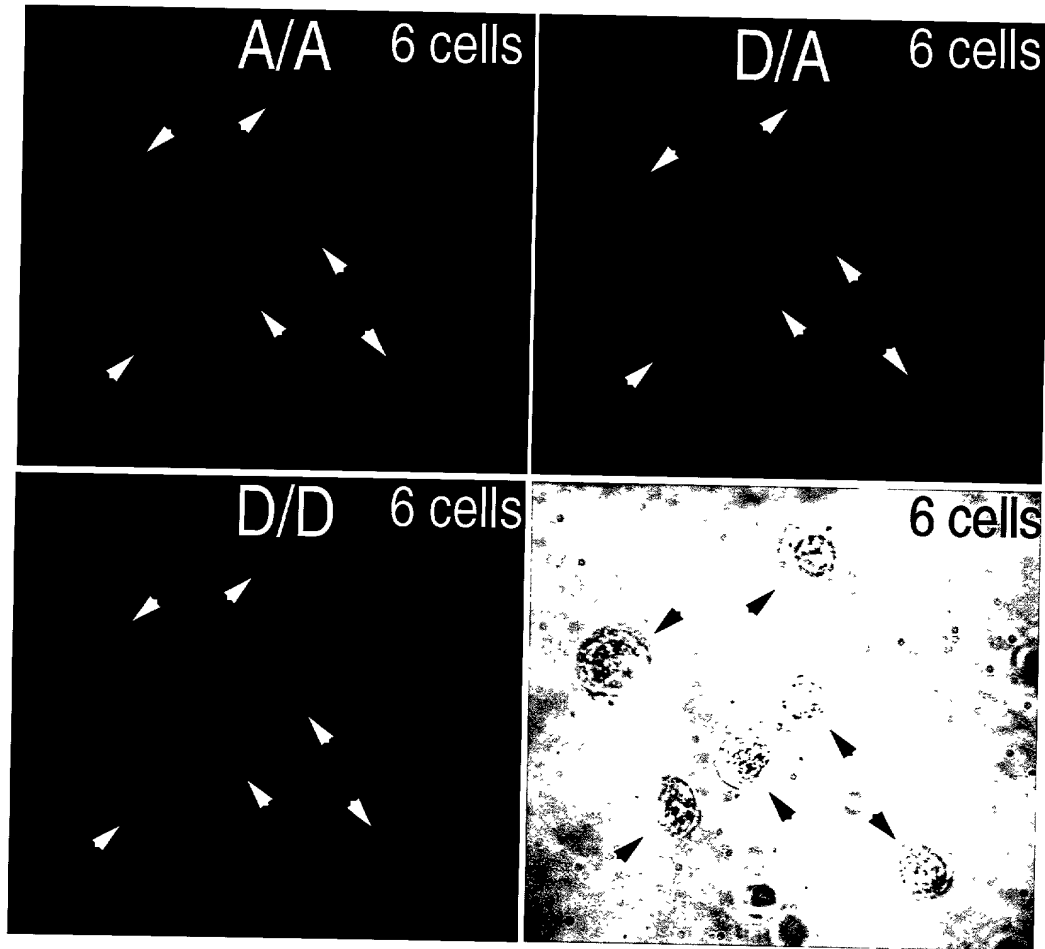
Leydig, Voit & Mayer, Ltd.

202-737-6770

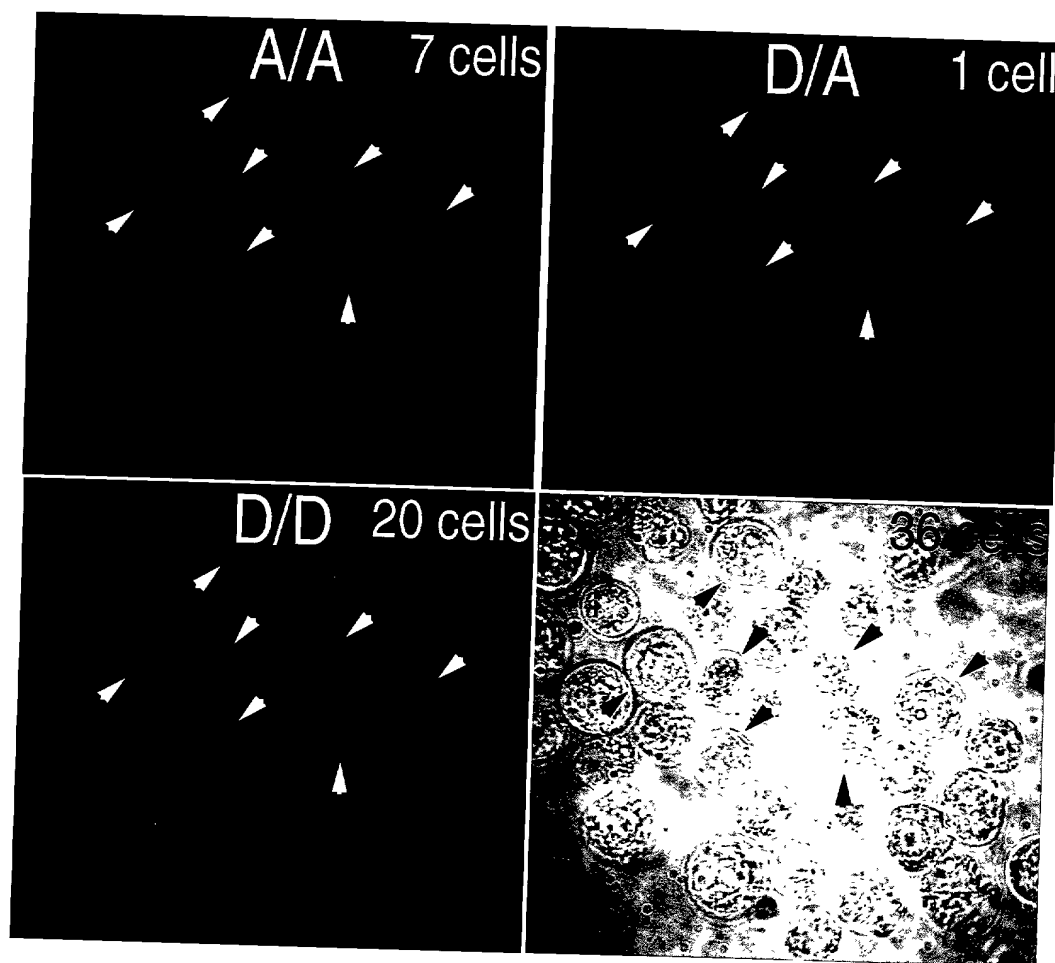
**Fig.42**



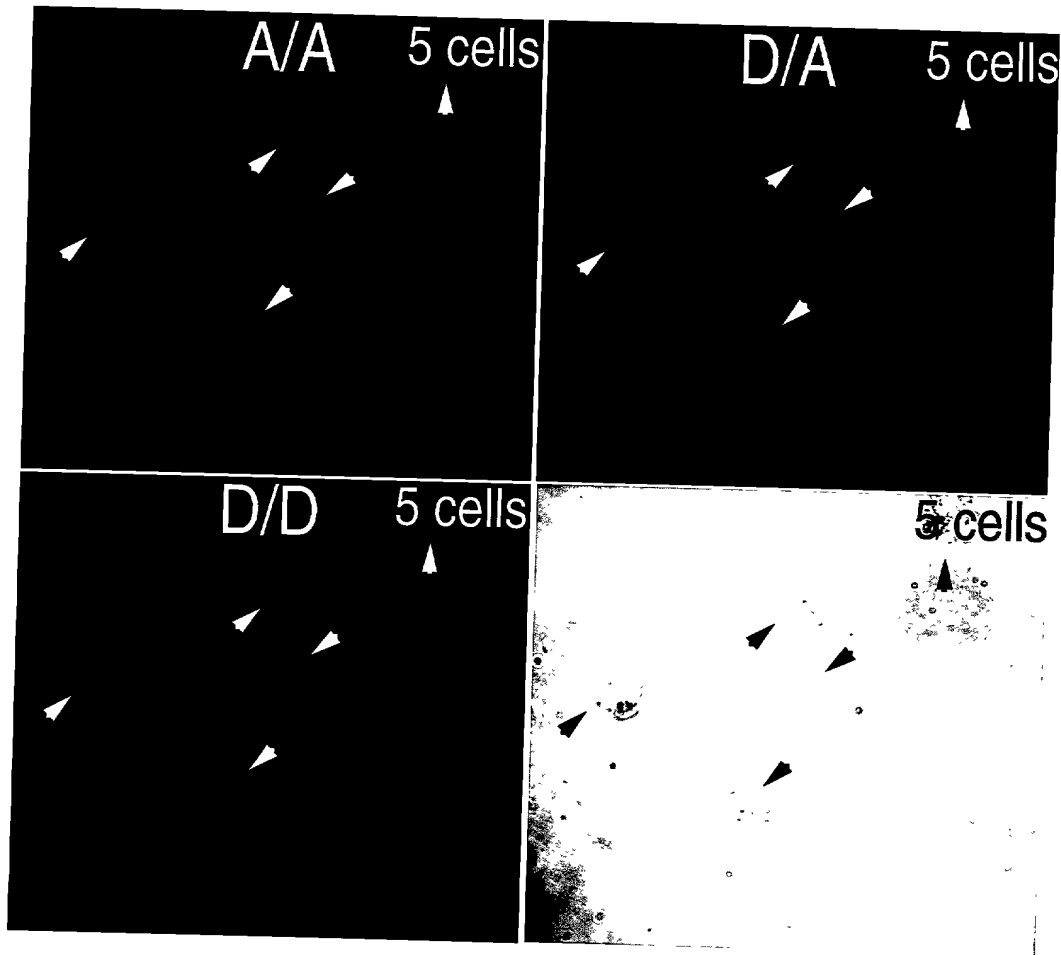
**Fig.43**



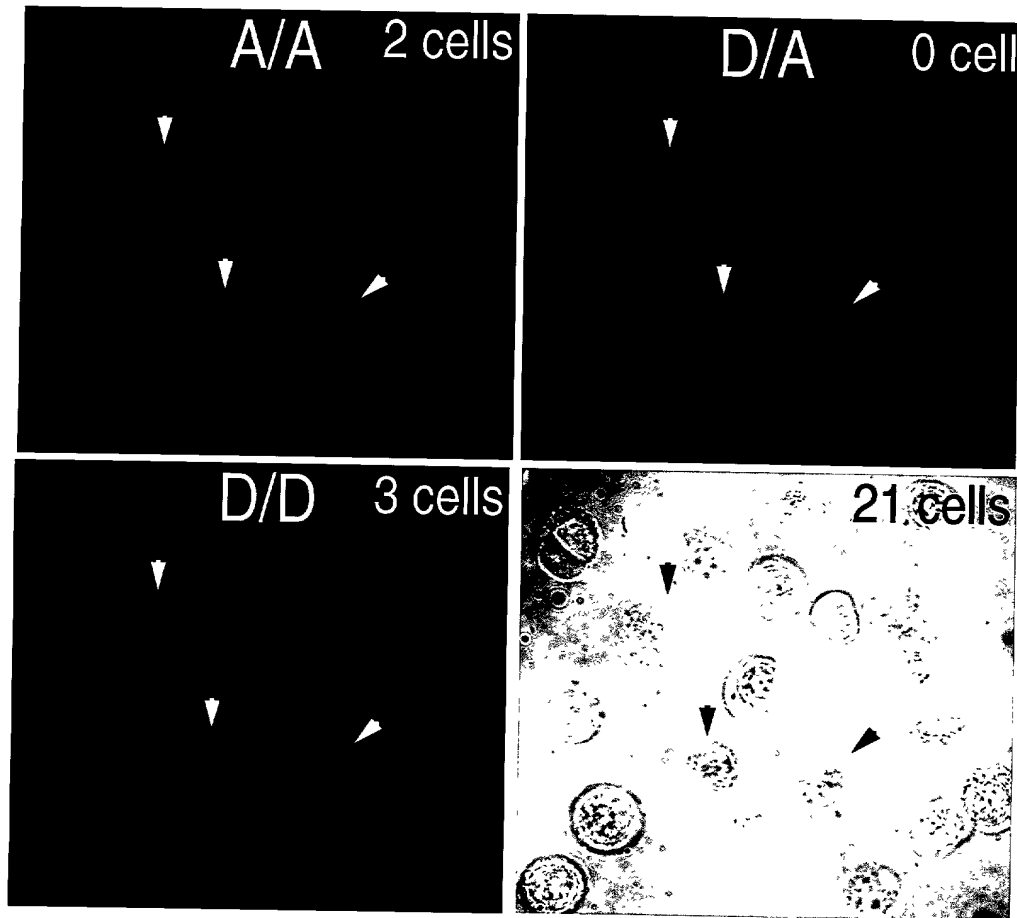
**Fig.44**



**Fig.45**

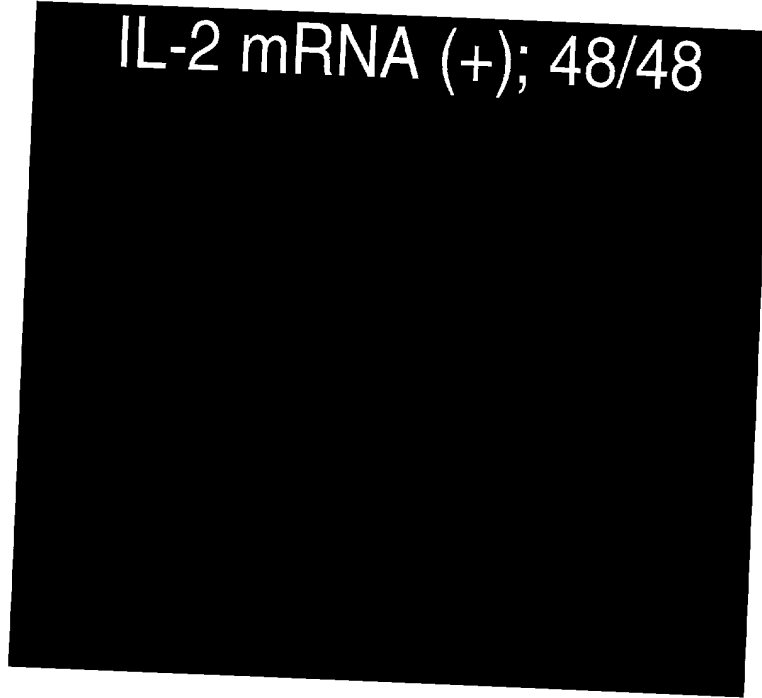


**Fig.46**





IL-2 mRNA (+); 48/48



IL-2 mRNA (+); 9/9

[illegible]

**Fig.49**

IL-2 mRNA (+); 0/32

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Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

Leydig, Voit & Mayer, Ltd.

202-737-6770

**Fig.50**

IL-2 mRNA (+); 18/35



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Title: Method For Selectively Separating Live Cells Expressing A Specific Gene

Inventors: ISHIBASHI et al.

Atty Docket No.: 400684/SOEI

Leydig, Voit & Mayer, Ltd.

202-737-6770

## **Fig.51**

IL-2 mRNA (+); 7/7



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**Fig.52**

IL-2 mRNA (+); 8/39

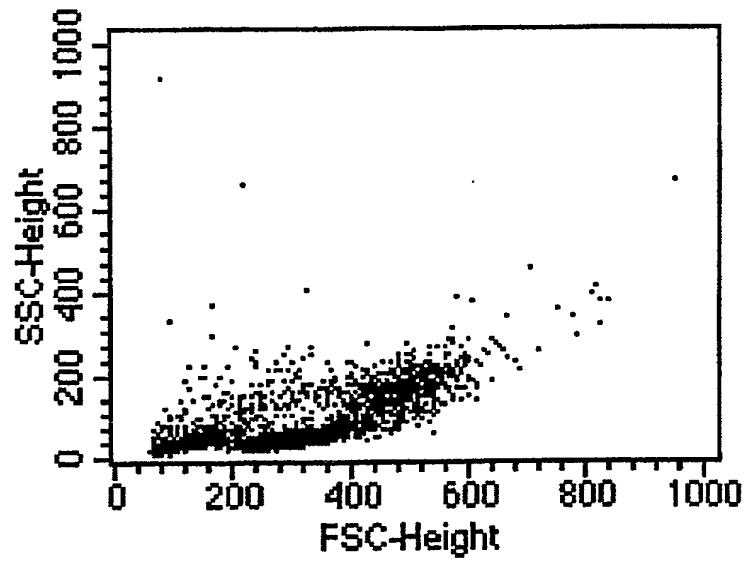


**Fig.53**

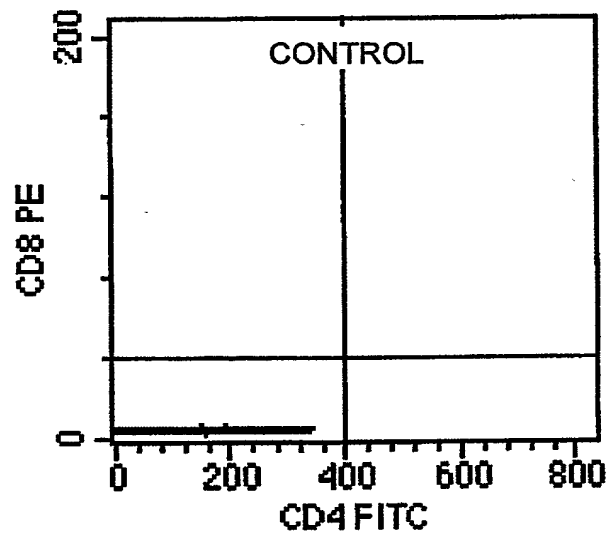
IL-2 mRNA (+); 8/8



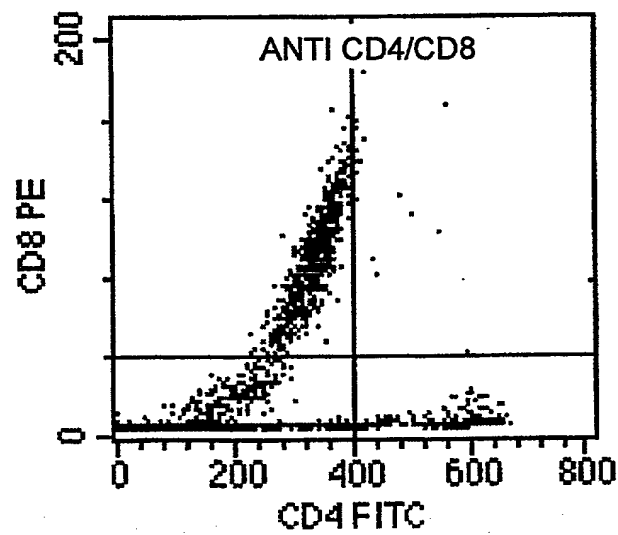
**Fig.54**



**Fig.55**

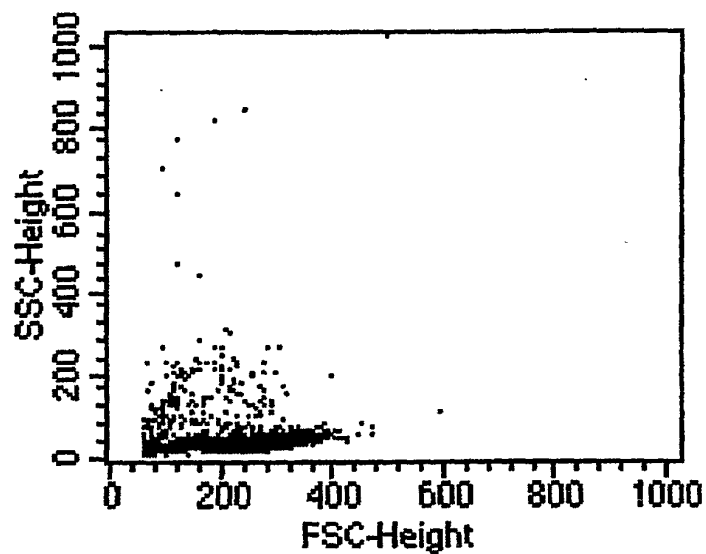


**Fig.56**

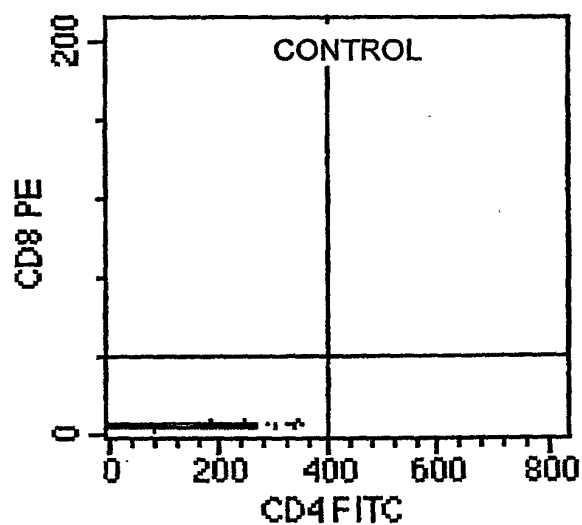




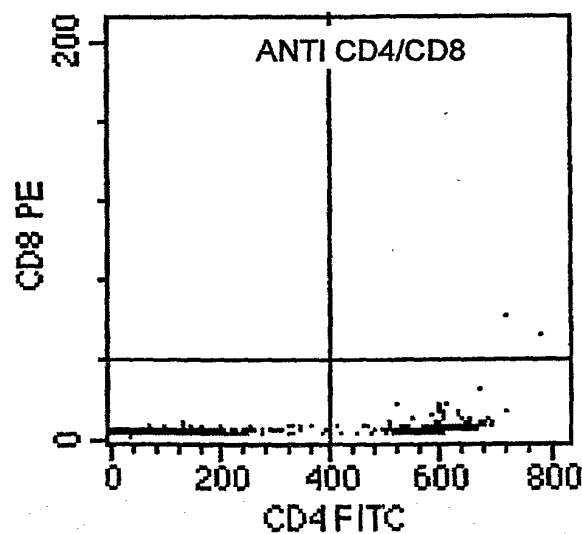
**Fig.57**



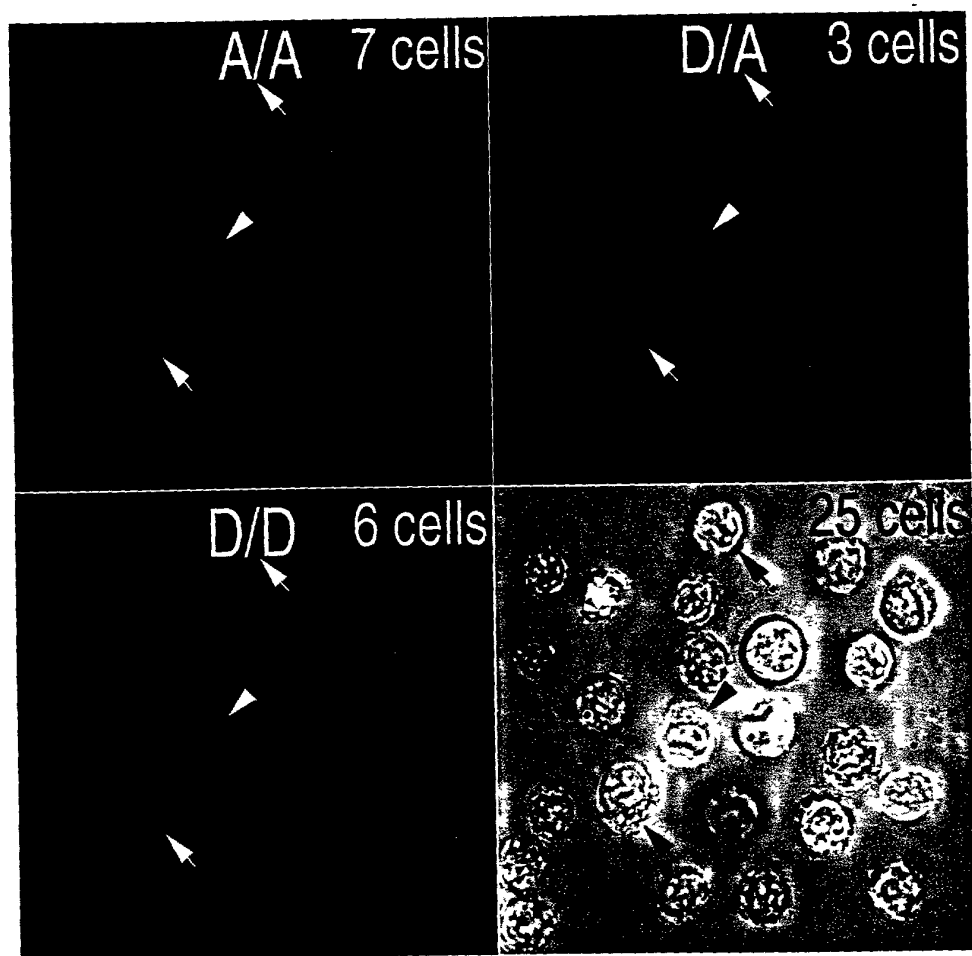
**Fig.58**



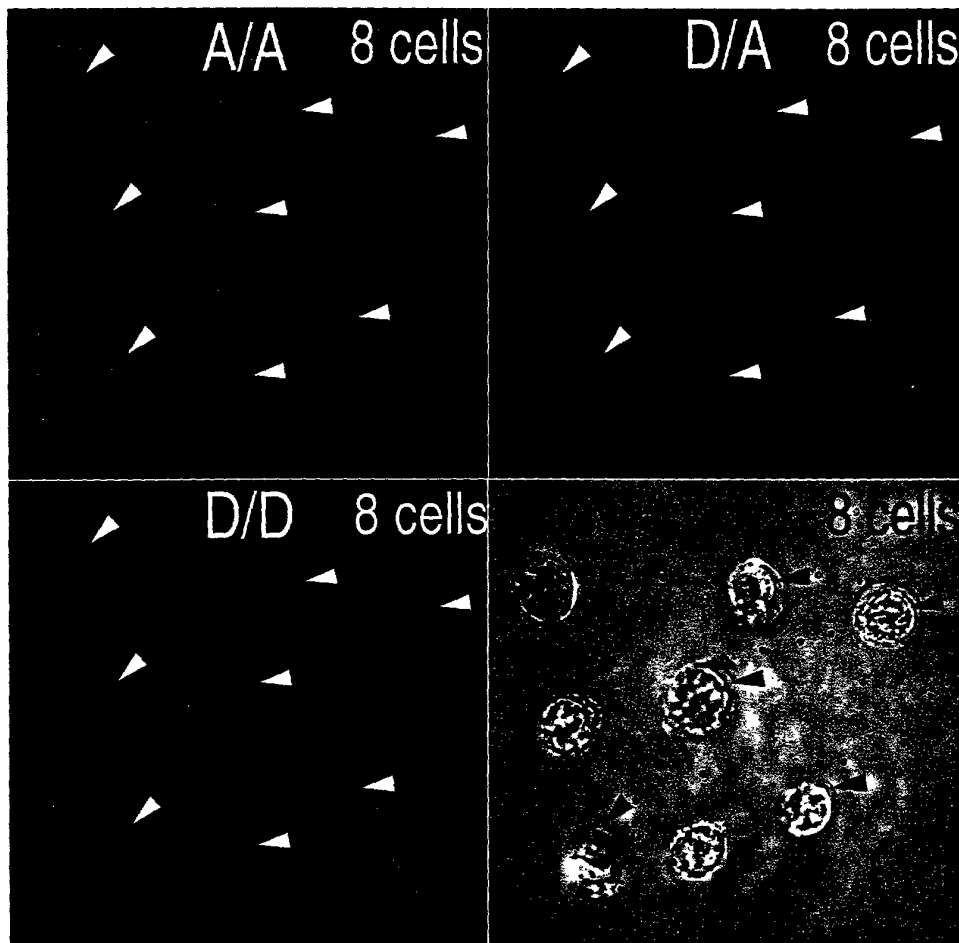
**Fig.59**



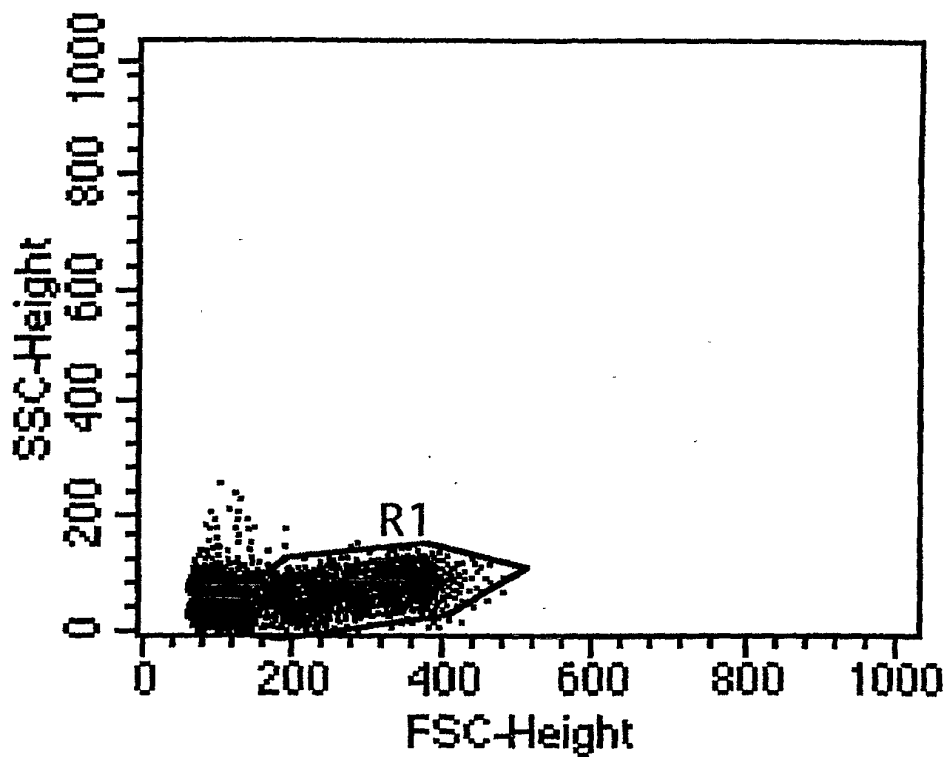
**Fig.60**



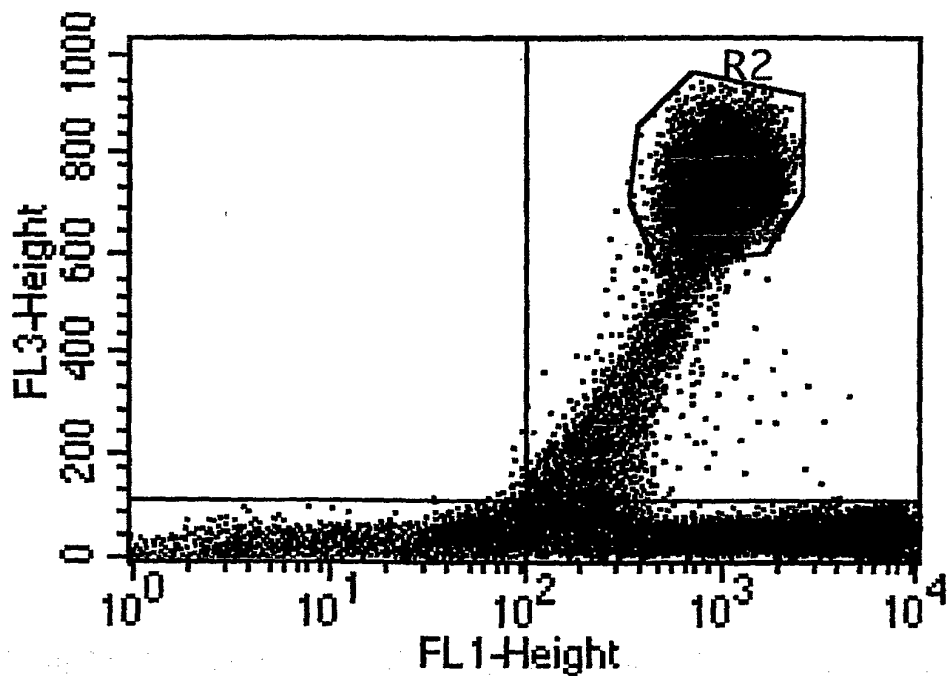
**Fig.61**



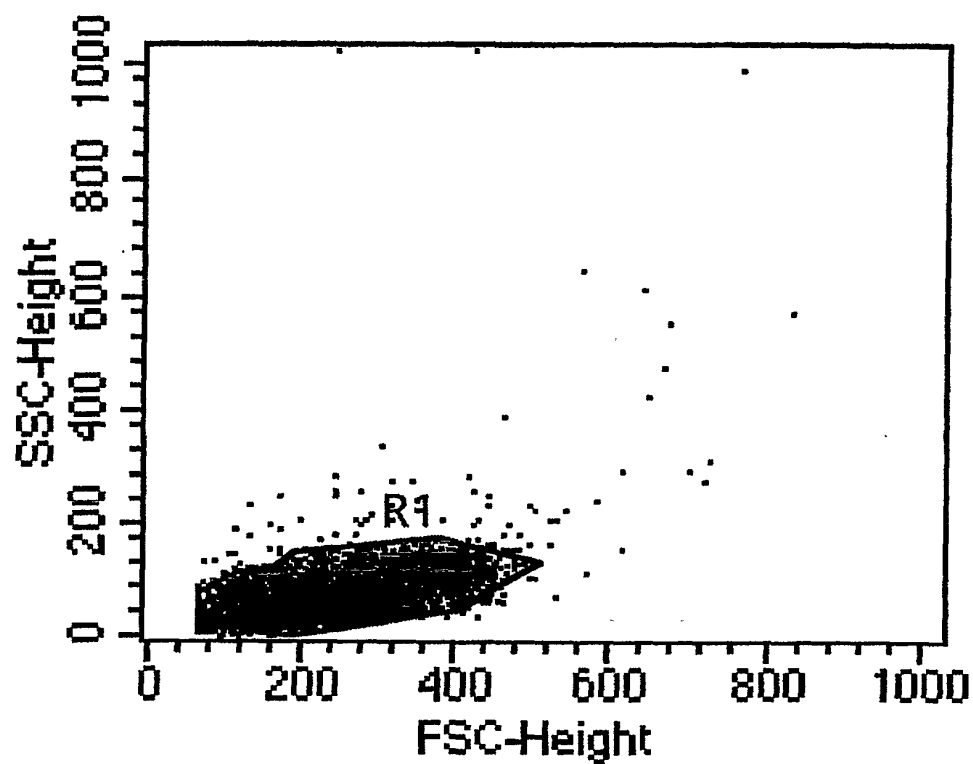
**Fig.62**



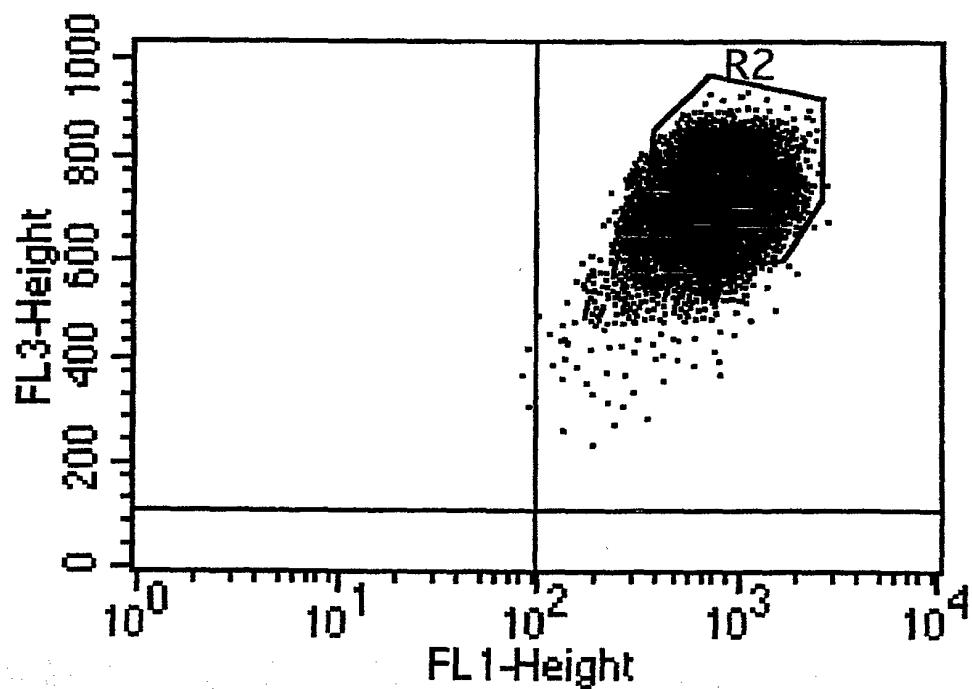
**Fig.63**



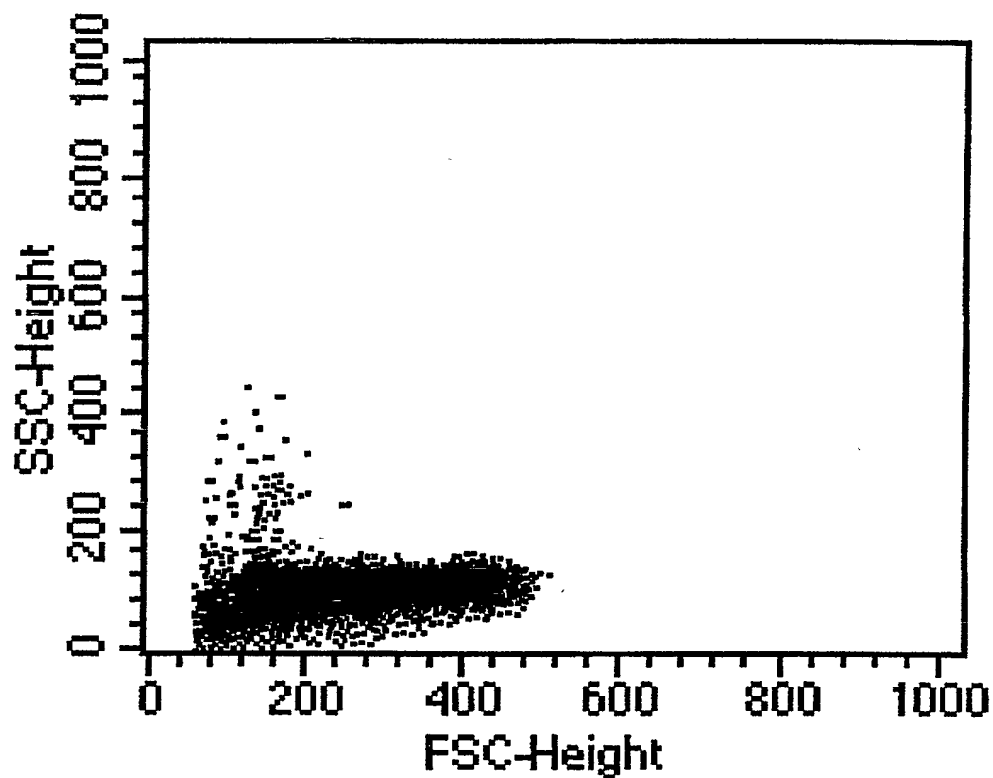
**Fig.64**



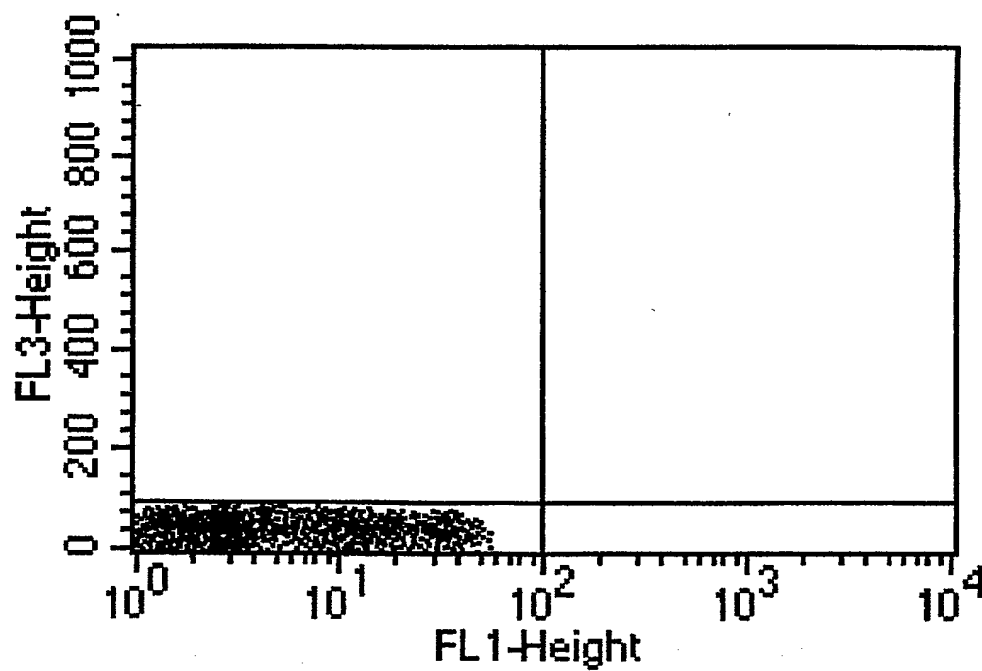
**Fig.65**



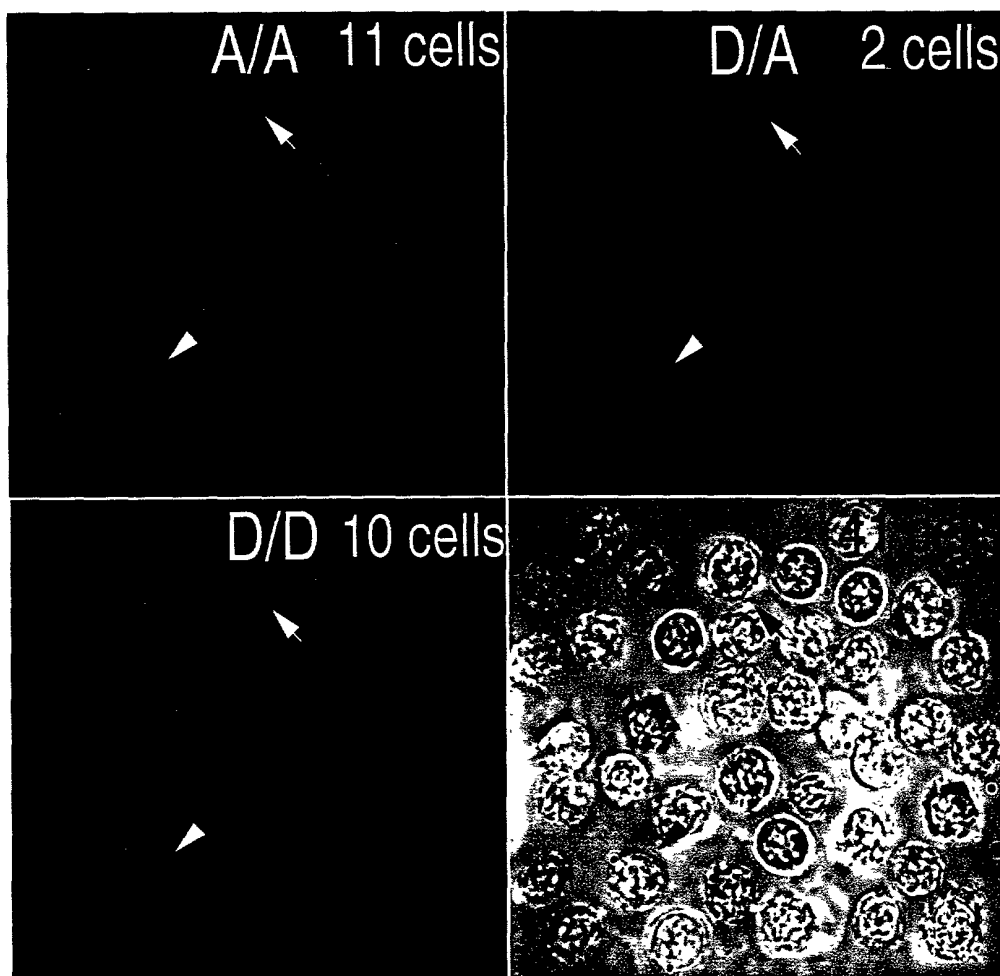
**Fig.66**



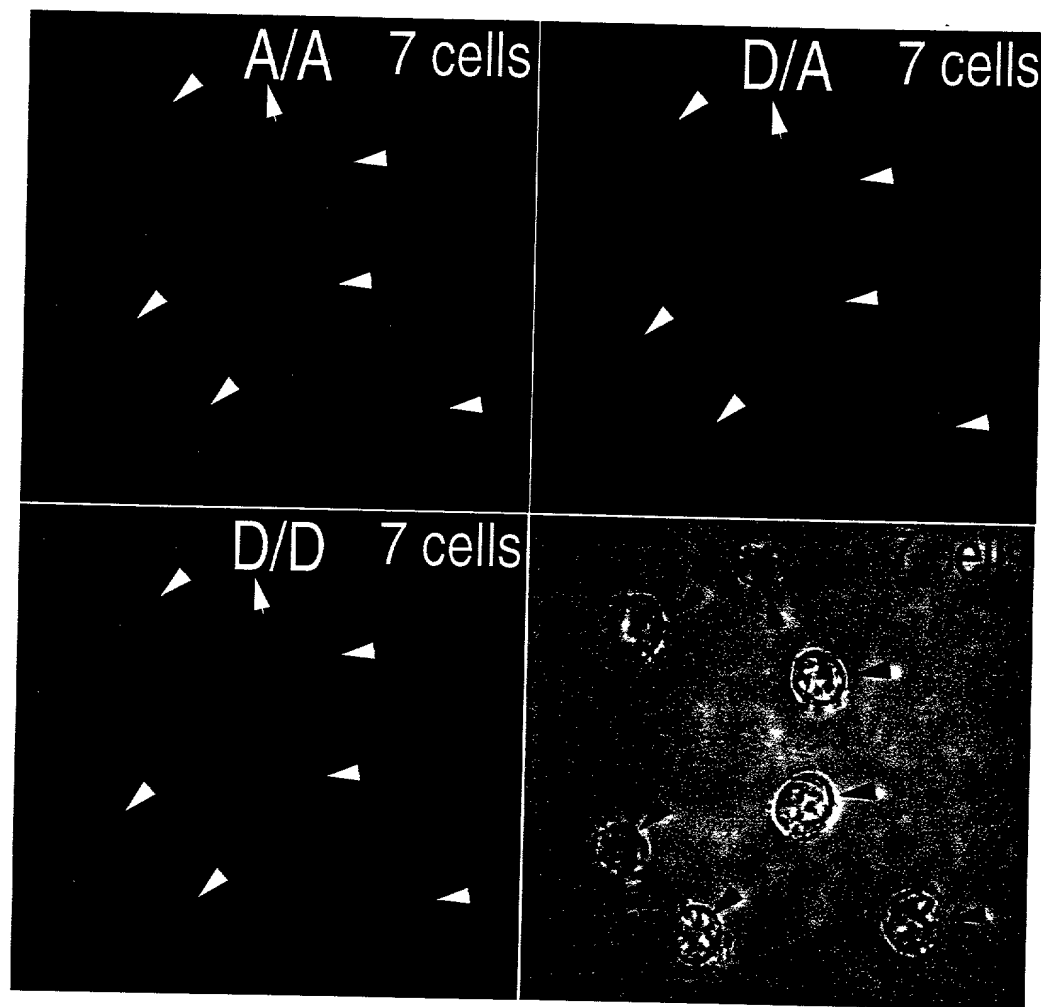
**Fig.67**



**Fig.68**

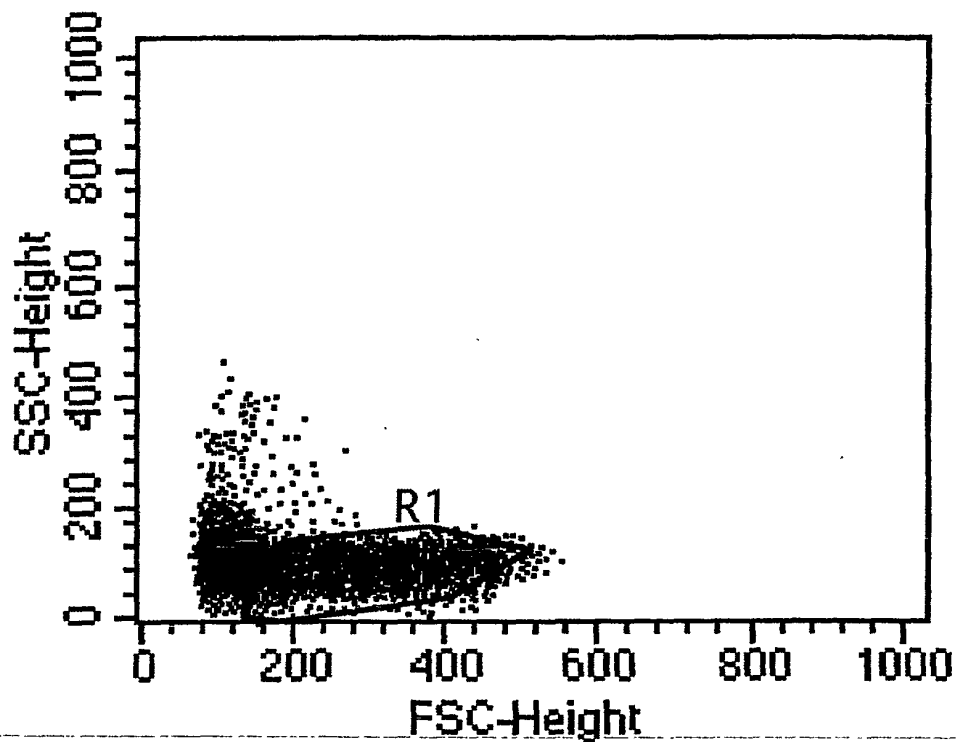


**Fig.69**

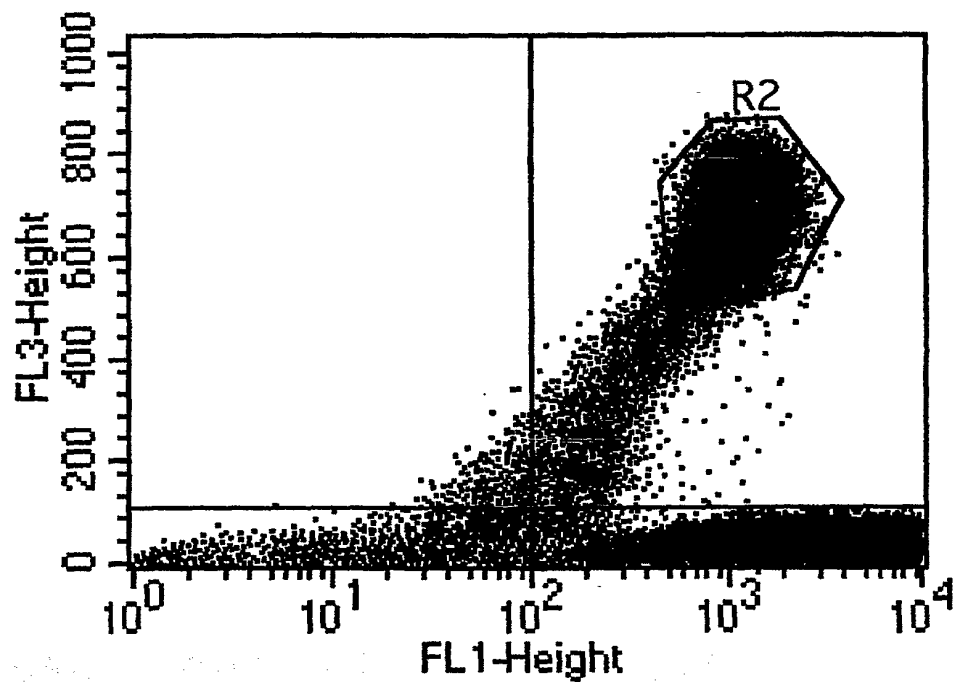




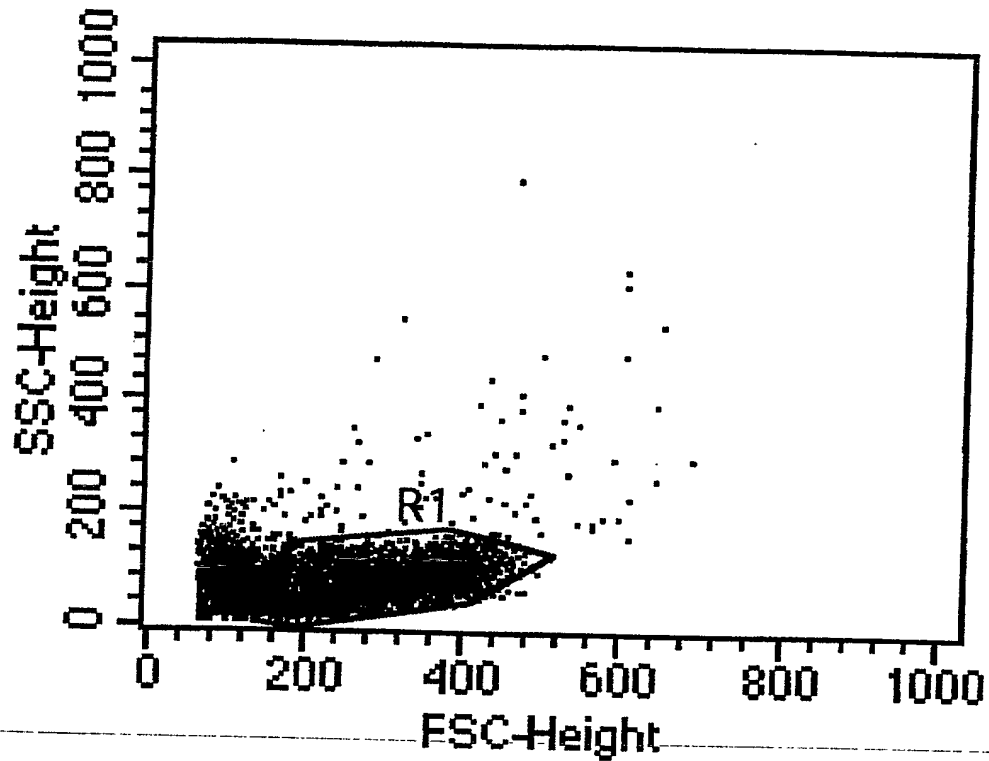
**Fig.70**



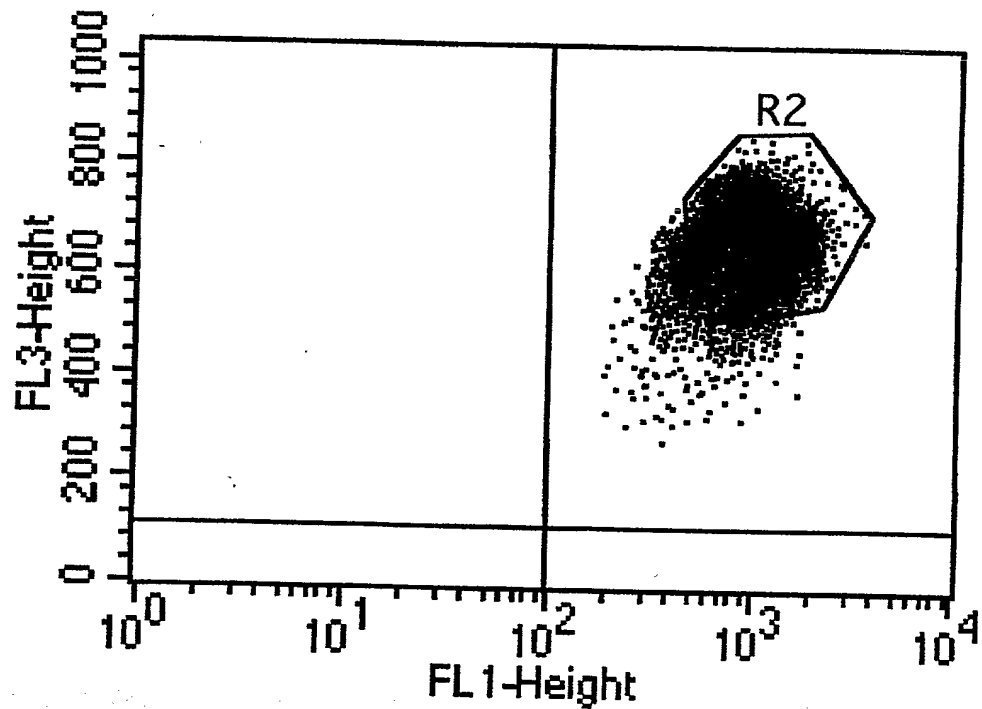
**Fig.71**



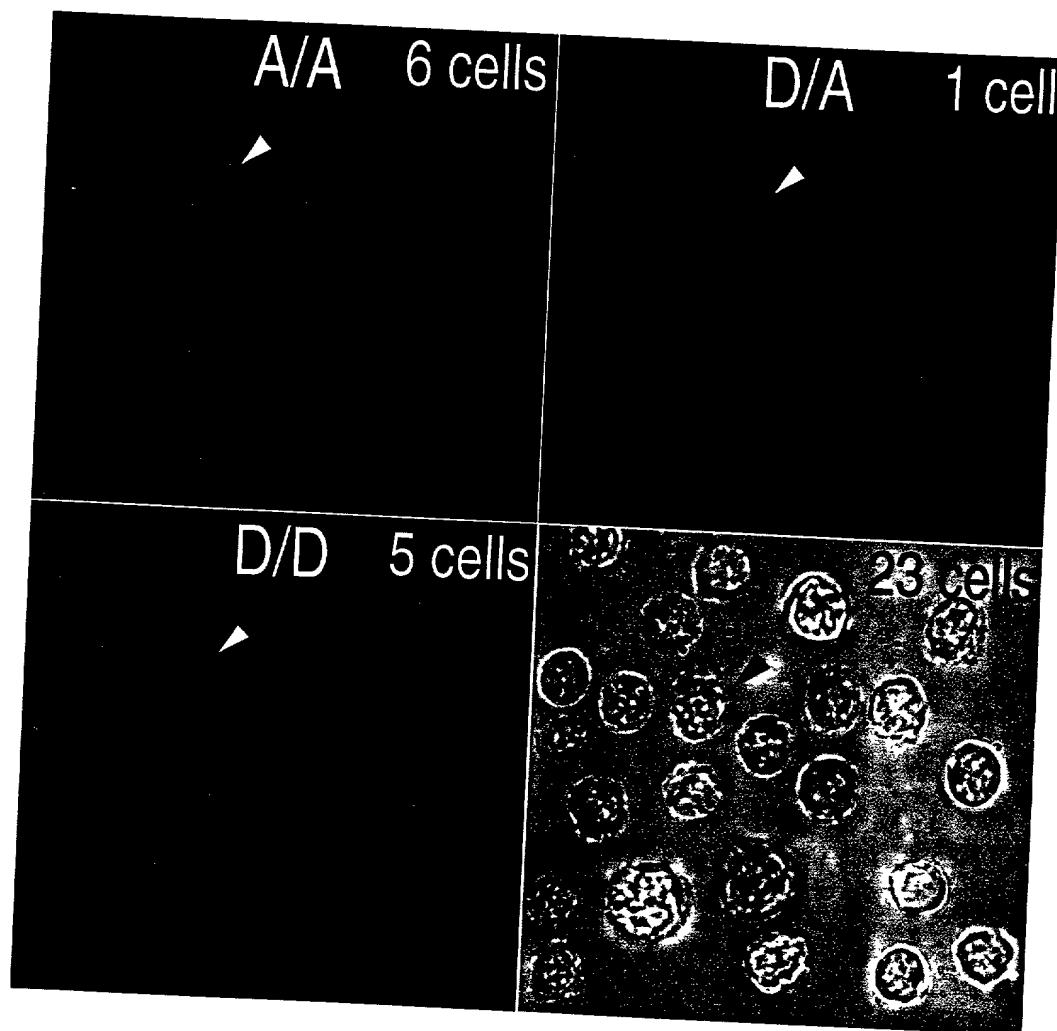
**Fig.72**



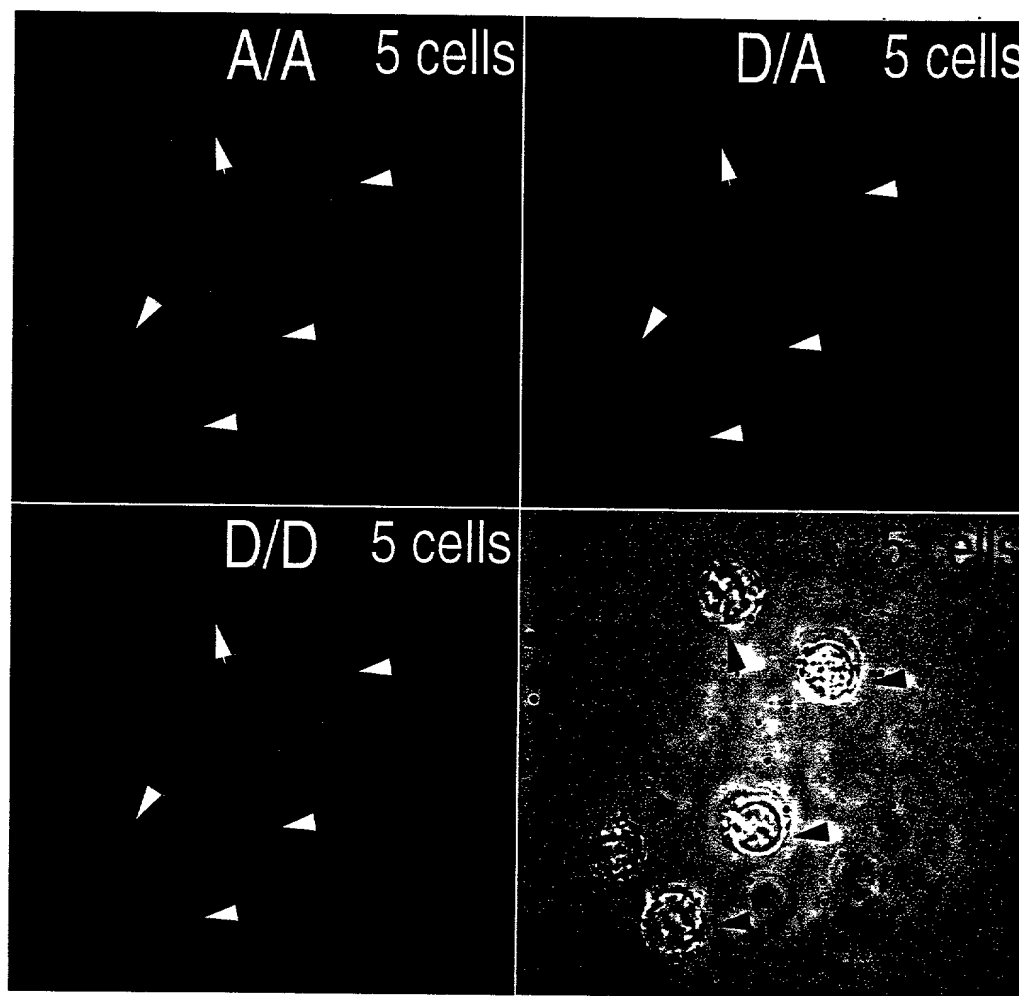
**Fig.73**



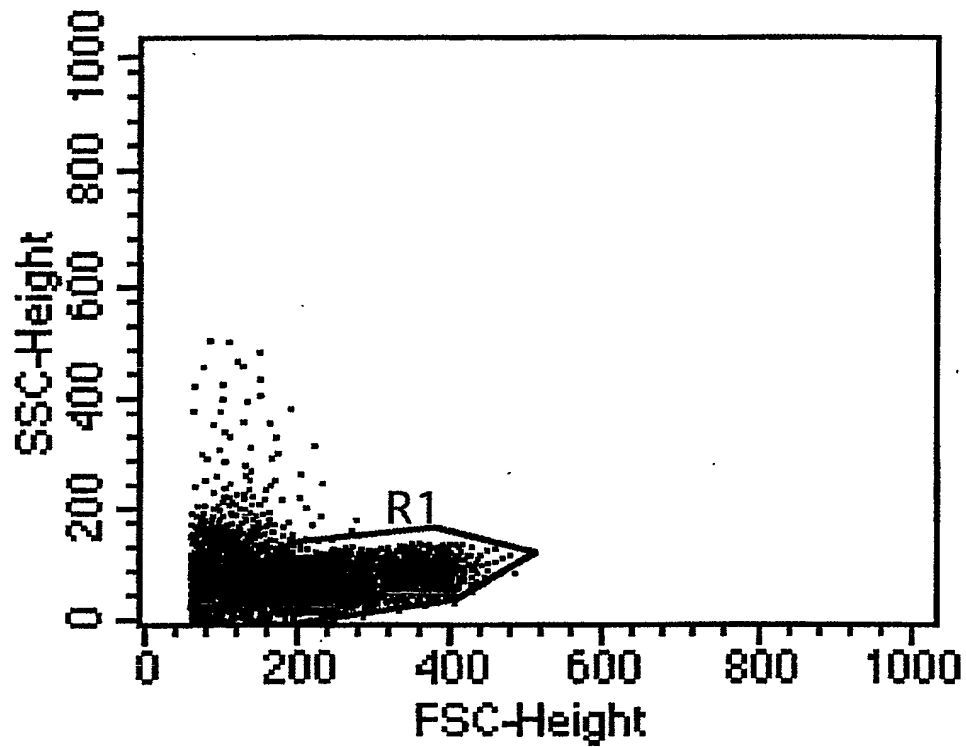
**Fig.74**



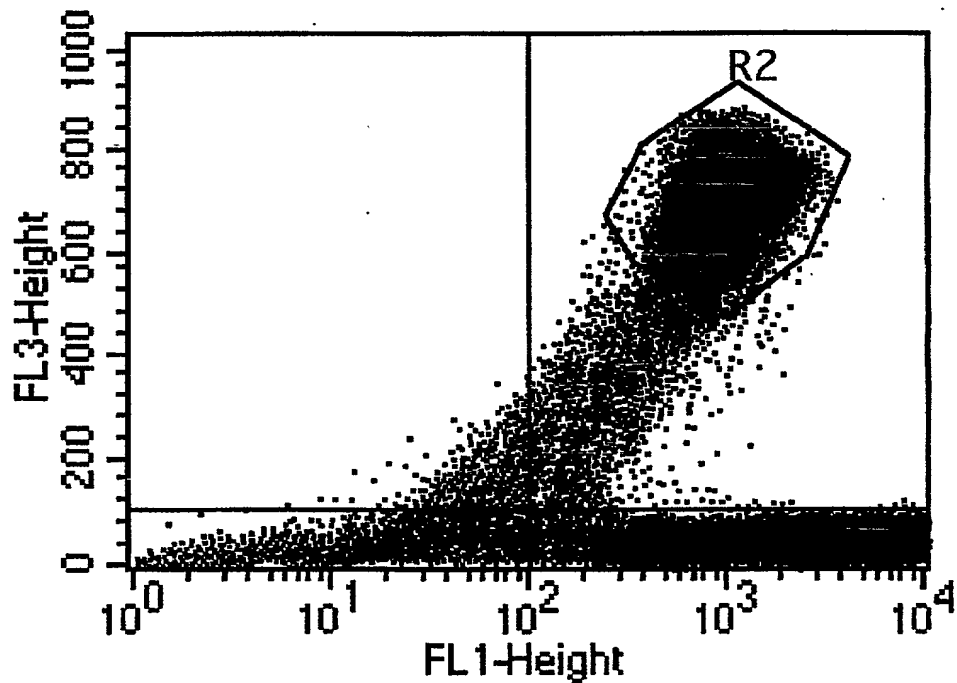
**Fig.75**



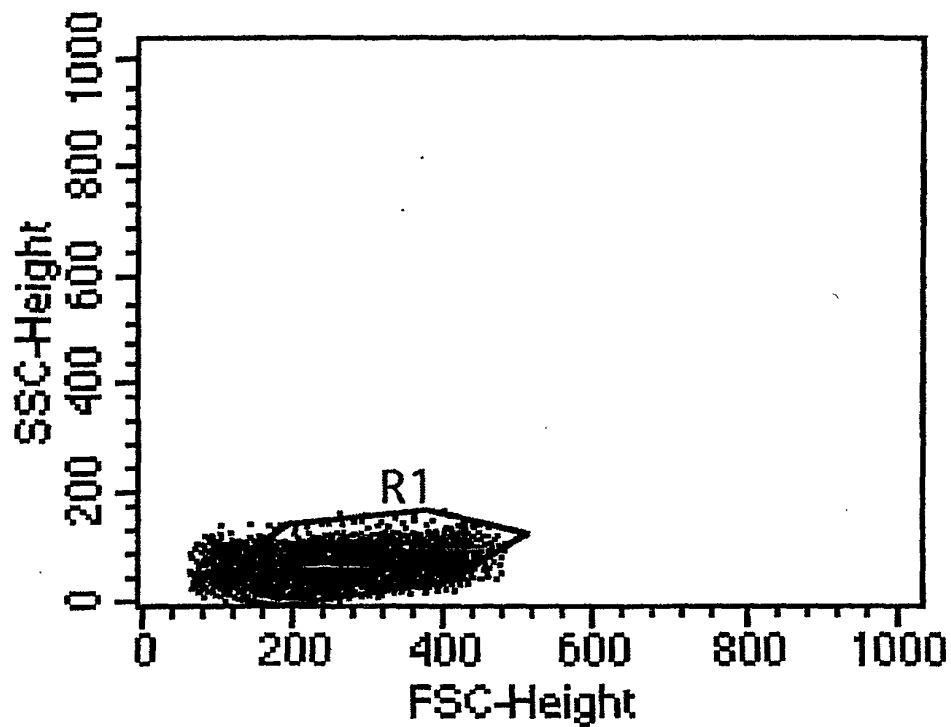
**Fig.76**



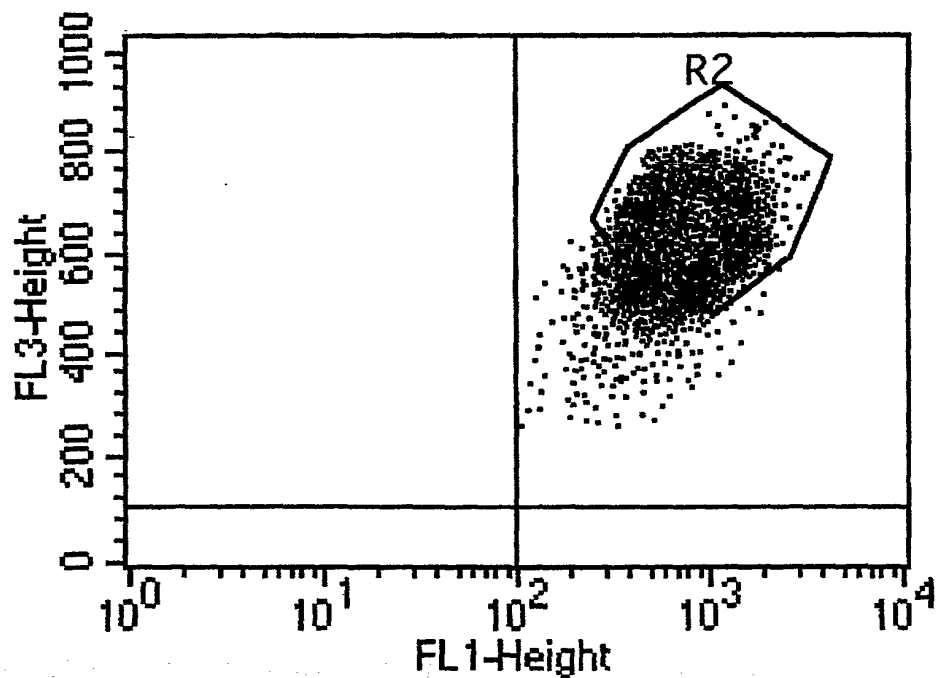
**Fig.77**



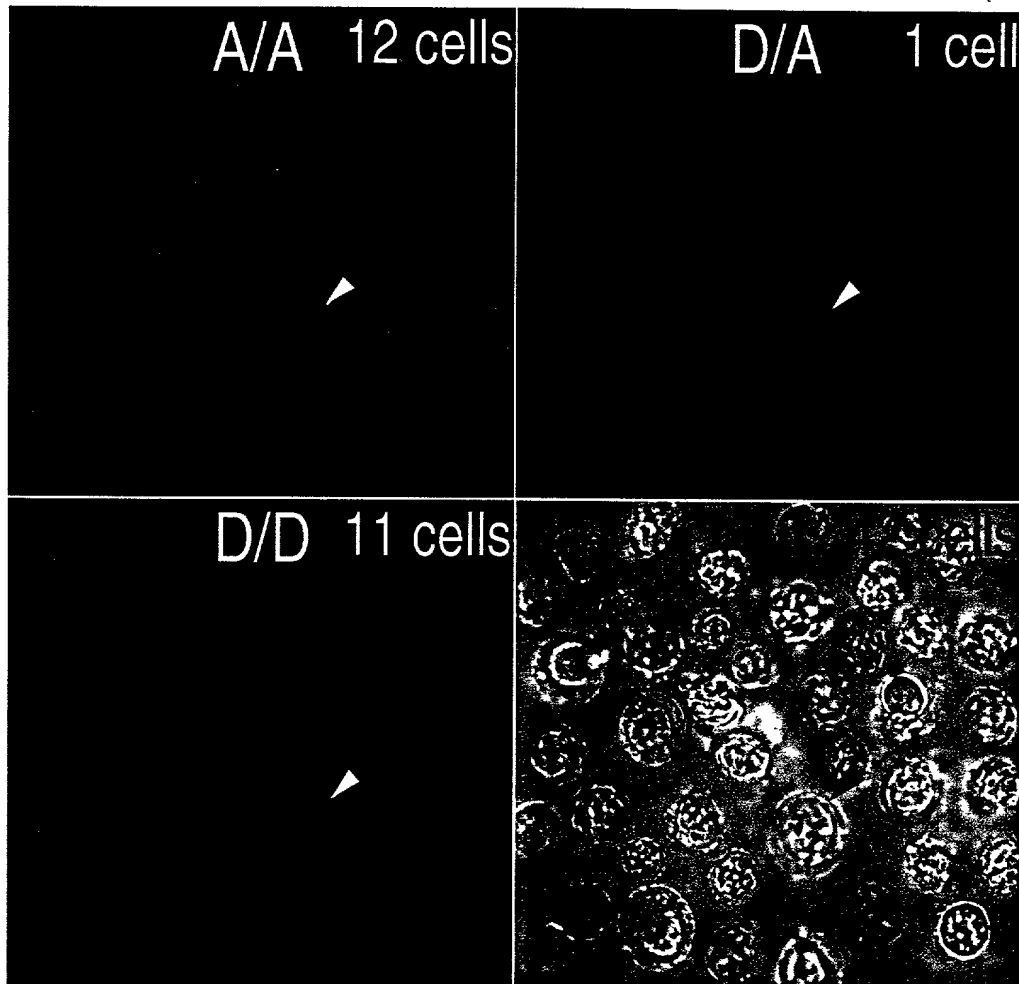
**Fig.78**



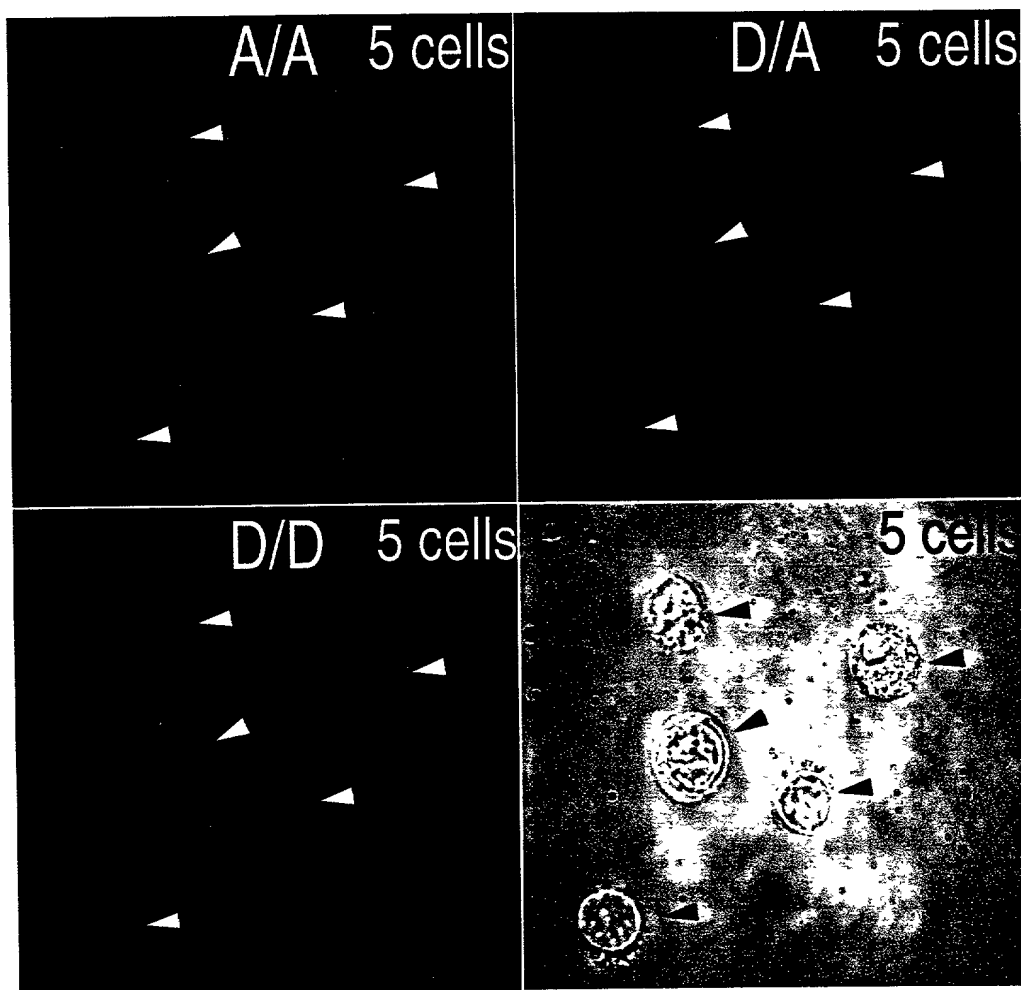
**Fig.79**



**Fig.80**

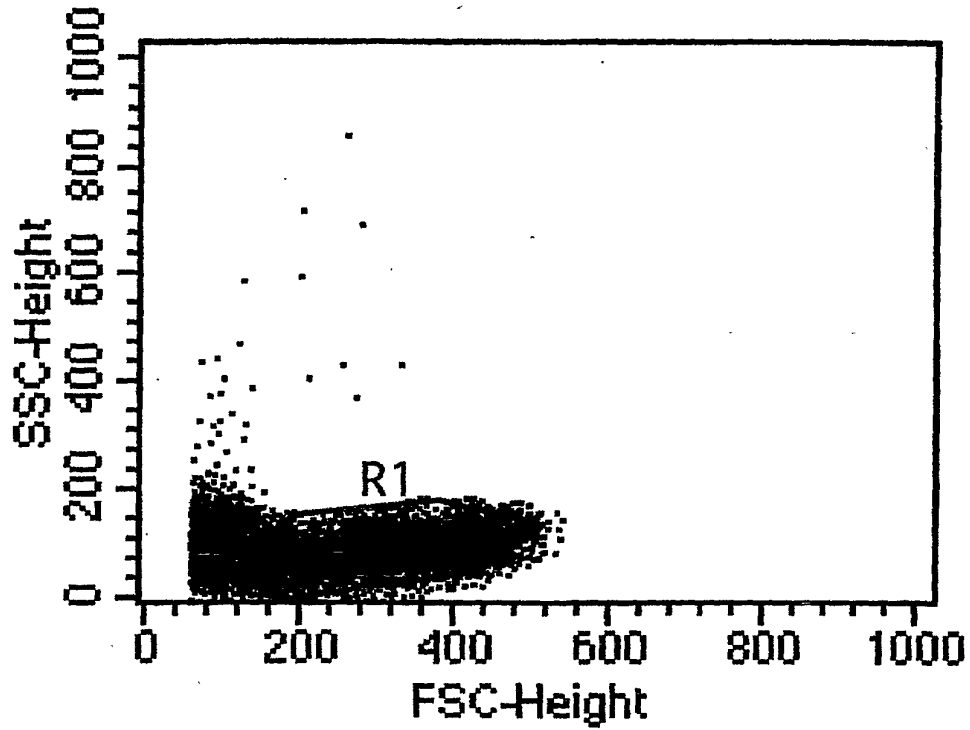


**Fig.81**

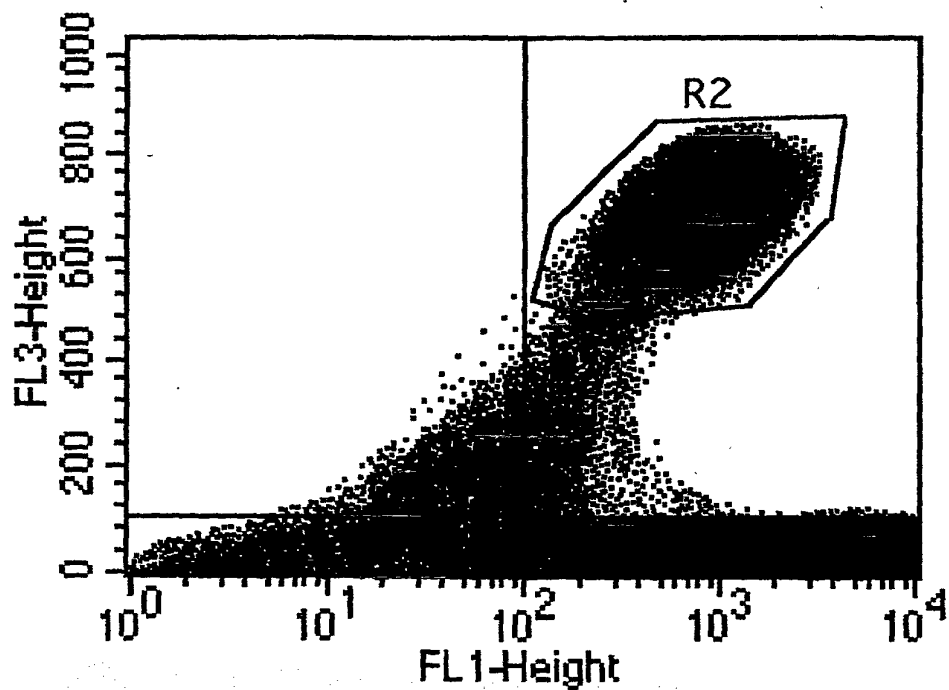




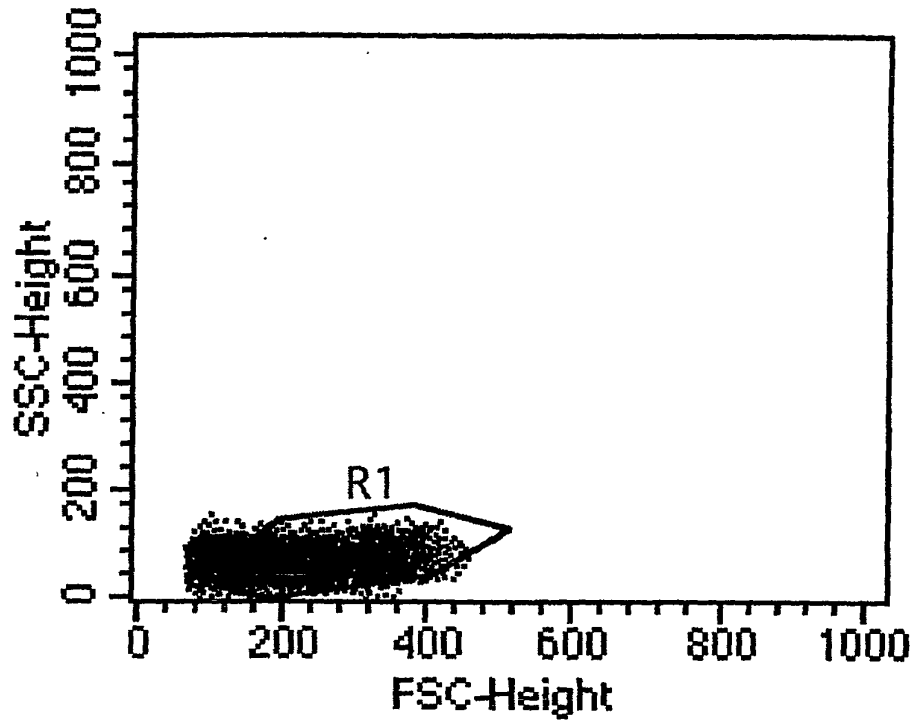
**Fig.82**



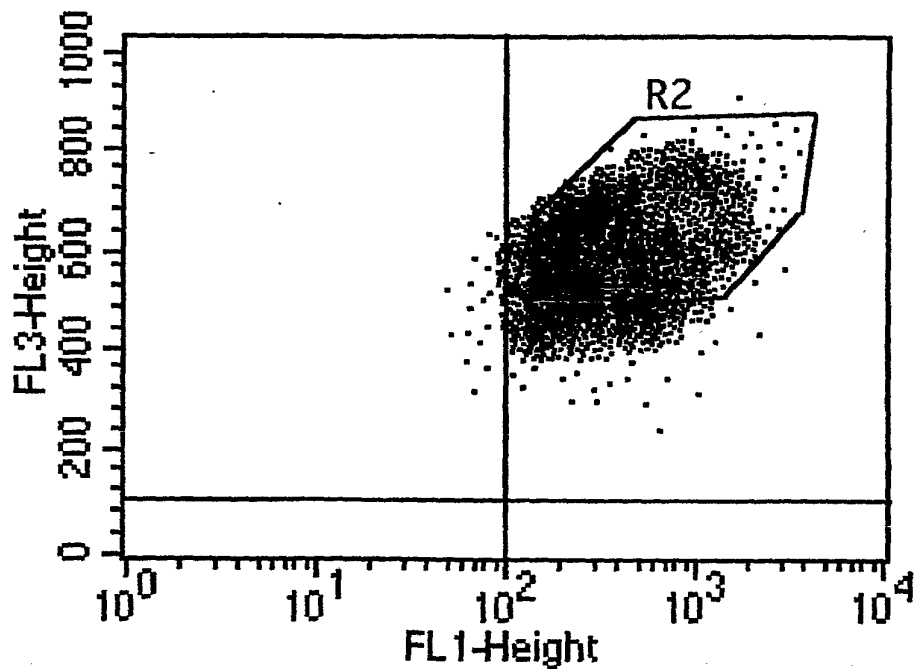
**Fig.83**



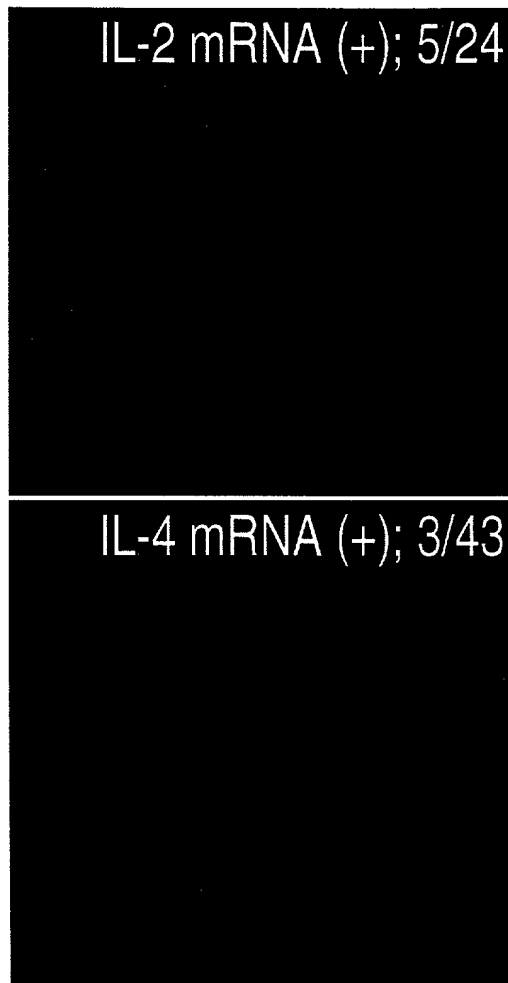
**Fig.84**



**Fig.85**



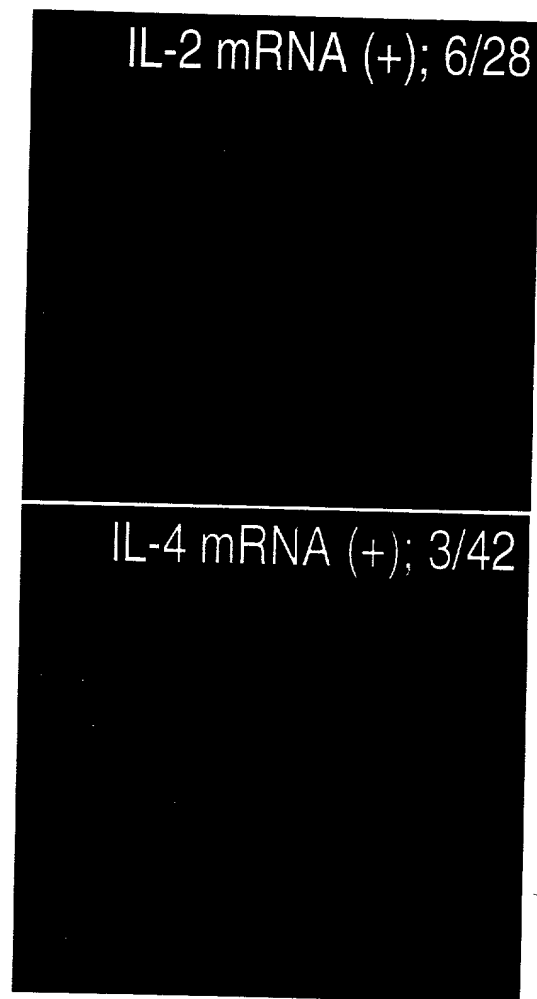
**Fig.86**



**Fig. 87**

IL-2 mRNA (+); 11/11	$\gamma$ -IF mRNA (+); 14/14	TNF- $\beta$ mRNA (+); 11/11
IL-4 mRNA (+); 0/10	IL-5 mRNA (+); 0/11	IL-10 mRNA (+); 0/9

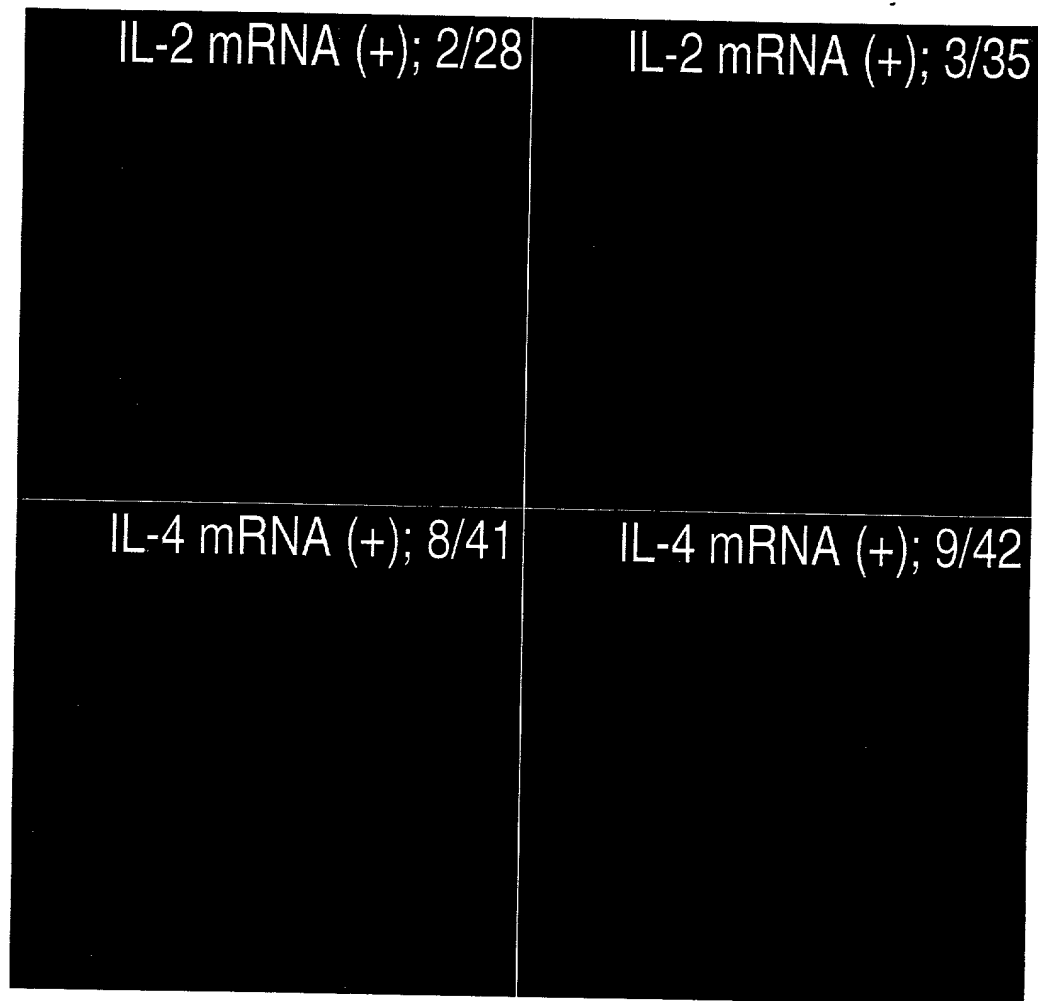
**Fig.88**



**Fig. 89**

IL-2 mRNA (+); 0/11	$\gamma$ -IF mRNA (+); 0/11	TNF- $\beta$ mRNA (+); 0/9
IL-4 mRNA (+); 12/12	IL-5 mRNA (+); 11/11	IL-10 mRNA (+); 11/11

**Fig.90**

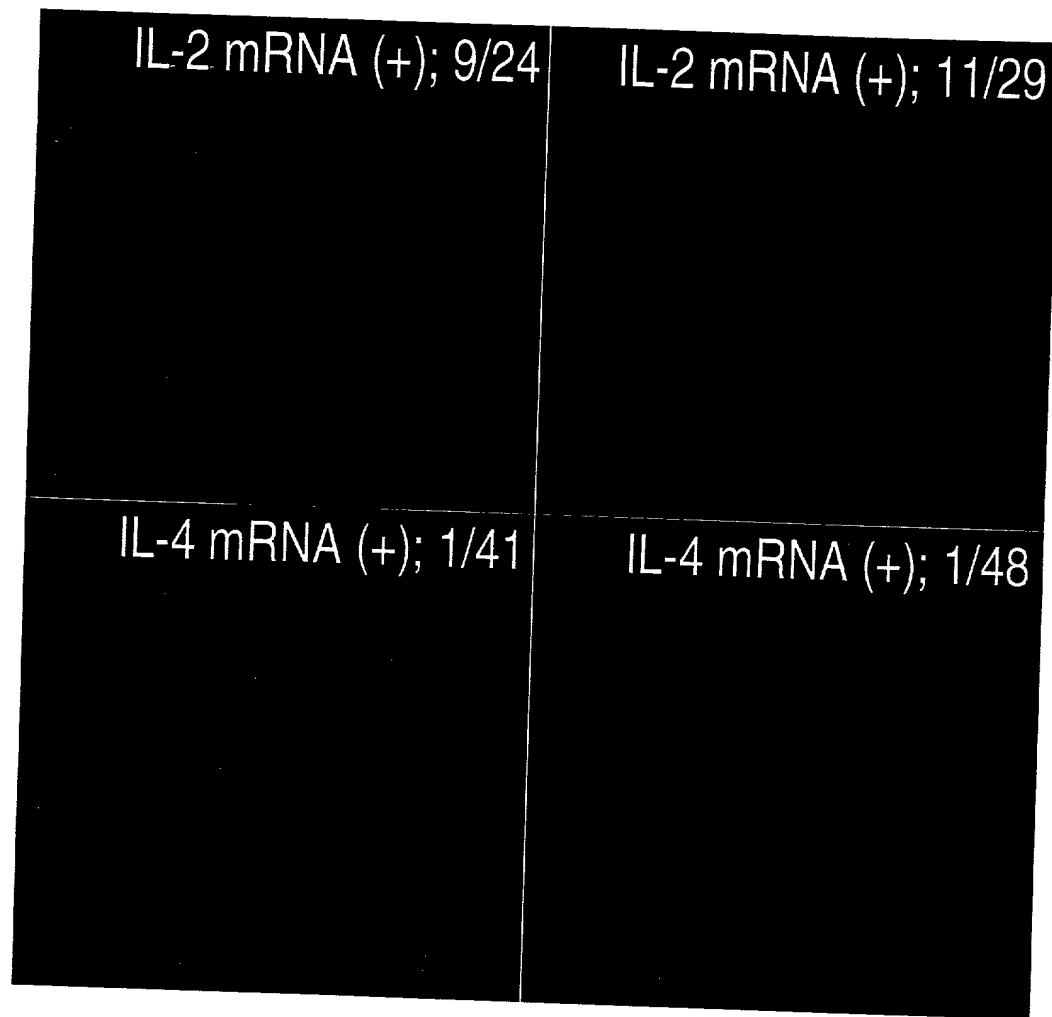


**Fig.91**

IL-2 mRNA (+); 10/10	$\gamma$ -IF mRNA (+); 9/9	TNF- $\beta$ mRNA (+); 9/9
IL-4 mRNA (+); 0/9	IL-5 mRNA (+); 0/8	IL-10 mRNA (+); 0/9



**Fig.92**



**Fig.93**

IL-2 mRNA (+); 0/7	$\gamma$ -IF mRNA (+); 0/8	TNF- $\beta$ mRNA (+); 0/8
IL-4 mRNA (+); 9/9	IL-5 mRNA (+); 10/10	IL-10 mRNA (+); 9/9

**Fig.94**

